# UNIX System V

## Release 2.0

# User Reference Manual

## Including BTL Computer Center Standard and Local Commands

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*This manual was set on an AUTOLOGIC, Inc. APS-5 phototypesetter driven by the TROFF formatter operating under the UNIX system.*

# PREFACE

This manual was designed through a cooperative effort of the BTL Computer Centers in Division 452. It represents a collection of nearly all the commands that are running on any Computer Center UNIX machine.

The manual pages for commands included in this manual fall into four different classes:

- Standard UNIX System V Release 2.0 commands
- Commands from various packages designated to become WECo Software Add-On packages
- Division 452 Computer Center Standard commands
- Local commands running at the various Computer Center locations.

The header of each manual page identifies the classification of the command along with any machine or site dependencies. Those commands whose headers indicate no classification are from Standard UNIX and are available on all machines. Any page marked **LOCAL** indicates the sites that are running that command. But it is possible that a local command may be available at more locations than indicated. Pages marked **DIV 452 STD** are from the collection of Computer Center standard commands, and are available on machines administered by Division 452 Computer Centers. The pages that are designated as **INTERIM** or **5.0** are those commands which are scheduled to be included in a separate WECo software add-on package. The pages that have been included herein with that heading reflect the version of that command which was included with the Division 452 Computer Center UNIX System Release. Due to some hardware and software dependencies or lack of user interest, however, some commands may not be running on all machines at your site. Any questions concerning this matter should be directed to your local System Administrator.

In some instances, two different commands have the same name. In these cases, both pages were included in the manual. The one running at your site can be determined by the heading on the page. A command marked **LOCAL** overrides both Standard UNIX and **DIV 452 STD** commands with the same name; those marked **DIV 452 STD** override the Standard UNIX commands.

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## INTRODUCTION

This manual describes the features of the UNIX system. It provides neither a general overview of the UNIX system (for that, see "The UNIX Time-Sharing System," *BSTJ*, Vol. 57, No. 6, Part 2, pp. 1905-29, by D. M. Ritchie and K. Thompson), nor details of the implementation of the system (see "UNIX Implementation," *BSTJ*, same issue, pp. 1931-46).

Not all commands, features, and facilities described in this manual are available in every UNIX system. The entries not applicable for a particular hardware line will have an appropriate caveat stamped in the center of the mast of an entry. Also, programs or facilities being phased out will be marked as "Obsolescent" on the top of the entry. When in doubt, consult your system's administrator.

This manual is divided into two sections, some containing inter-filed sub-classes:

1. Commands and Application Programs:
   1. General-Purpose Commands
   1C. Communications Commands
   1G. Graphics Commands
6. Games

**Section 1** (*Commands and Application Programs*) describes programs intended to be invoked directly by the user or by command language procedures, as opposed to subroutines, which are intended to be called by the user's programs. Commands generally reside in the directory **/bin** (for **bin**ary programs). Some programs also reside in **/usr/bin**, to save space in **/bin**. These directories are searched automatically by the command interpreter called the *shell*. Sub-class 1C contains communication programs such as *cu*, *send*, *uucp*, etc. These entries may not apply from system to system depending upon the hardware included on your processor. Some UNIX systems may have a directory called **/usr/lbin**, containing local commands.

**Section 6** (*Games*) describes the games and educational programs that, as a rule, reside in the directory **/usr/games**.

Each section consists of a number of independent entries of a page or so each. The name of the entry appears in the upper corners of its pages. Entries within each section are alphabetized, with the exception of the introductory entry that begins each section. Some entries may describe several routines, commands, etc. In such cases, the entry appears only once, alphabetized under its "major" name.

All entries are based on a common format, not all of whose parts always appear:

The **NAME** part gives the name(s) of the entry and briefly states its purpose.

The **SYNOPSIS** part summarizes the use of the program being described. A few conventions are used, particularly in Section 1 (*Commands*):

**Boldface** strings are literals and are to be typed just as they appear.

*Italic* strings usually represent substitutable argument prototypes and program names found elsewhere in the manual (they are underlined in the typed version of the entries).

Square brackets [] around an argument prototype indicate that the argument is optional. When an argument prototype is given as "name" or "file", it always refers to a *file* name.

Ellipses ... are used to show that the previous argument prototype may be repeated.

A final convention is used by the commands themselves. An argument beginning with a minus −, plus +, or an equal sign = is often taken to be some sort of flag argument, even if it appears in a position where a file name could appear. Therefore, it is unwise to have files whose names begin with −, +, or =.

The **DESCRIPTION** part discusses the subject at hand.

The **EXAMPLE(S)** part gives example(s) of usage, where appropriate.

The **FILES** part gives the file names that are built into the program.

The **SEE ALSO** part gives pointers to related information.

The **DIAGNOSTICS** part discusses the diagnostic indications that may be produced. Messages that are intended to be self-explanatory are not listed.

The **WARNINGS** part points out potential pitfalls.

The **BUGS** part gives known bugs and sometimes deficiencies. Occasionally, the suggested fix is also described.

A table of contents and a permuted index derived from that table precede Section 1. On each *index* line, the title of the entry to which that line refers is followed by the appropriate section number in parentheses. This is important because there is considerable duplication of names among the sections, arising principally from commands that exist only to exercise a particular system call.

On most systems, all entries are available on-line via the *man*(1) command.

This discussion provides the basic information you need to get started on the UNIX system: how to log in and log out, how to communicate through your terminal, and how to run a program. (See the *UNIX System User Guide* for a more complete introduction to the system.)

**Logging in.** You must dial up the UNIX operating system from an appropriate terminal. The UNIX system supports full-duplex ASCII terminals. You must also have a valid user name, which may be obtained (together with the telephone number(s) of your UNIX system) from the administrator of your system. Common terminal speeds are 10, 15, 30, and 120 characters per second (110, 150, 300, and 1,200 baud); occasionally, speeds of 240, 480, and 960 characters per second (2,400, 4,800, and 9,600 baud) are also available. On some UNIX systems, there are separate telephone numbers for each available terminal speed, while on other systems several speeds may be served by a single telephone number. In the latter case, there is one "preferred" speed; if you dial in from a terminal set to a different speed, you will be greeted by a string of meaningless characters (the **login:** message at the wrong speed). Keep hitting the "break" or "attention" key until the **login:** message appears. Hard-wired terminals usually are set to the correct speed.

Most terminals have a speed switch that should be set to the appropriate speed and a half-/full-duplex switch that should be set to full-duplex. When a connection (at the speed of the terminal) has been established, the system types **login:** and you then type your user name followed by the "return" key. If you have a password (and you should!), the system asks for it, but does not print ("echo") it on the terminal. After you have logged in, the "return", "new-line", and "line-feed" keys will give exactly the same result.

It is important that you type your login name in lower case if possible; if you type upper-case letters, the UNIX system will assume that your terminal cannot generate lower-case letters and that you mean all subsequent upper-case input to be treated as lower case. When you have logged in successfully, the shell will type a **$** to you. (The shell is described below under *How to run a program.*)

For more information, consult *login*(1), which discusses the login sequence in more detail, and *stty*(1), which tells you how to describe the characteristics of your terminal to the system. The command (*profile*(4) in The *UNIX System Programmer Reference Manual* explains how to accomplish this last task automatically every time you log in).

**Logging out.** There are two ways to log out:

1. You can simply hang up the phone.
2. You can log out by typing an end-of-file indication (ASCII **EOT** character, usually typed as "control-d") to the shell. The shell will terminate and the **login:** message will appear again.

**How to communicate through your terminal.** When you type to UNIX system, a gnome deep in the system is gathering your characters and saving them. These characters will not be given to a program until you type a "return" (or "new-line"), as described above in *Logging in.*

UNIX system terminal input/output is full-duplex. It has full read-ahead, which means that you can type at any time, even while a program is typing at you. Of course, if you type during output, the output will have interspersed in it the input characters. However, whatever you type will be saved and interpreted in the correct sequence. There is

a limit to the amount of read-ahead, but it is generous and not likely to be exceeded unless the system is in trouble. When the read-ahead limit is exceeded, the system silently throws away *all* the saved characters.

On an input line from a terminal, the character @ "kills" all the characters typed before it. The character # erases the last character typed. Successive uses of # will erase characters back to, but not beyond, the beginning of the line; @ and # can be typed as themselves by preceding them with \ (thus, to erase a \, you need two #s). These default erase and kill characters can be changed; see *stty*(1).

The ASCII **DC3** (control-s) character can be used to temporarily stop output. It is useful with CRT terminals to prevent output from disappearing before it can be read. Output is resumed when a **DC1** (control-q) or a second **DC3** (or any other character, for that matter) is typed. The **DC1** and **DC3** characters are not passed to any other program when used in this manner.

The ASCII **DEL** (a.k.a. "rubout") character is not passed to programs, but instead generates an *interrupt signal,* just like the "break", "interrupt", or "attention" signal. This signal generally causes whatever program you are running to terminate. It is typically used to stop a long printout that you do not want. However, programs can arrange either to ignore this signal altogether, or to be notified when it happens (instead of being terminated). The editor *ed*(1), for example, catches interrupts and stops what *it* is doing, instead of terminating, so that an interrupt can be used to halt an editor printout without losing the file being edited.

The *quit* signal is generated by typing the ASCII **FS** character. It not only causes a running program to terminate, but also, if possible, generates a file with the "core image" of the terminated process. *Quit* is useful for debugging.

Besides adapting to the speed of the terminal, the UNIX system tries to be intelligent as to whether you have a terminal with the "new-line" function, or whether it must be simulated with a "carriage-return" and "line-feed" pair. In the latter case, all *input* "carriage-return" characters are changed to "line-feed" characters (the standard line delimiter), and a "carriage-return" and "line-feed" pair is echoed to the terminal. If you get into the wrong mode, the *stty*(1) command will rescue you.

Tab characters are used freely in UNIX system source programs. If your terminal does not have the tab function, you can arrange to have tab characters changed into spaces during output, and echoed as spaces during input. Again, the *stty*(1) command will set or reset this mode. The system assumes that tabs are set every eight character positions. The *tabs*(1) command will set tab stops on your terminal, if that is possible.

**How to run a program.** When you have successfully logged into the UNIX system, a program called the shell is listening to your terminal. The shell reads the lines you type, splits them into a command name and its arguments, and executes the command. A command is simply an executable program. Normally, the shell looks first in your current directory (see *The current directory* below) for a program with the given name, and if none is there, then in system directories. There is nothing special about system-provided commands except that they are kept in directories where the shell can find them. You can also keep commands in your own directories and arrange for the shell to find them there.

The command name is the first word on an input line to the shell; the command and its arguments are separated from one another by space and/or tab characters.

When a program terminates, the shell will ordinarily regain control and type a **$** at you to indicate that it is ready for another command. The shell has many other capabilities, which are described in detail in *sh*(1).

**The current directory.** The UNIX system has a file system arranged in a hierarchy of directories. When the system administrator gave you a user name, he or she also created a directory for you (ordinarily with the same name as your user name, and known as your *login* or *home* directory). When you log in, that directory becomes your *current* or *working* directory, and any file name you type is, by default, assumed to be in that directory. Because you are the owner of this directory, you have full permissions to read, write, alter, or destroy its contents. Permissions to have your will with other directories and files will have been granted or denied to you by their respective owners, or by the system administrator. To change the current directory use *cd*(1).

**Path names.** To refer to files not in the current directory, you must use a path name. Full path names begin with /, which is the name of the *root* directory of the whole file system. After the slash comes the name of each directory containing the next subdirectory (followed by a /), until finally the file name is reached (e.g., **/usr/ae/filex** refers to file **filex** in directory **ae**, while **ae** is itself a subdirectory of **usr**; **usr** springs directly from the root directory). See *intro*(2) for a formal definition of *path name*.

If your current directory contains subdirectories, the path names of files therein begin with the name of the corresponding subdirectory (*without* a prefixed /). Without important exception, a path name may be used anywhere a file name is required.

Important commands that modify the contents of files are *cp*(1), *mv*, and *rm*(1), which respectively copy, move (i.e., rename), and remove files. To find out the status of files or directories, use *ls*(1). Use *mkdir*(1) for making directories and *rmdir*(1) for destroying them.

For a fuller discussion of the file system, see the references cited at the beginning of the *INTRODUCTION* above. It may also be useful to glance through Section 2 of The UNIX System Programmer Reference Manual, which discusses system calls, even if you do not intend to deal with the system at that level.

**Writing a program.** To enter the text of a source program into a UNIX system file, use *ed*(1). The principal languages available under the UNIX system are C (see *cc*(1)), Fortran (see *f77*(1)), and assembly language (see *as*(1)). After the program text has been entered with the editor and written into a file (whose name has the appropriate suffix), you can give the name of that file to the appropriate language processor as an argument. Normally, the output of the language processor will be left in a file in the current directory named **a.out** (if that output is precious, use *mv*(1) to give it a less vulnerable name). If the program is written in assembly language, you will probably need to load with it library subroutines (see *ld*(1)). Fortran and C call the loader automatically.

When you have finally gone through this entire process without provoking any diagnostics, the resulting program can be run by giving its name to the shell in response to the **$** prompt.

If any execution (run-time) errors occur, you will need *sdb*(1) or *adb*(1) to examine the remains of your program.

Your programs can receive arguments from the command line just as system programs do; see *exec*(2).

**Text processing.** Almost all text is entered through the editor *ed*(1). The commands most often used to write text on a terminal are *cat*(1), *pr*(1), and *nroff*. The *cat*(1) command simply dumps ASCII text on the terminal, with no processing at all. The *pr*(1) command paginates the text, supplies headings, and has a facility for multi-column output.

**Surprises.** Certain commands provide *inter-user* communication. Even if you do not plan to use them, it would be well to learn something about them, because someone else may aim them at you. To communicate with another user currently logged in, *write*(1) is used; *mail*(1) will leave a message whose presence will be announced to another user when he or she next logs in. The corresponding entries in this manual also suggest how to respond to these two commands if you are their target.

When you log in, a message-of-the-day may greet you before the first **$**.

# TABLE OF CONTENTS

## 1. Commands and Application Programs


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4014 . . . . . paginator for the Tektronix 4014 terminal
450 . . . . . handle special functions of the DASI 450 terminal
9700 . . . . . handle special functions of the XEROX 9700 printer
abst . . . . . analyze the abstractness of a document
acc . . . . . print process accounting entries
account . . . . . produces the IHCC Accounting Report for Programmers
acctcom . . . . . search and print process accounting file(s)
acro . . . . . find acronyms in a text file
adb . . . . . absolute debugger
addgrp . . . . . add and delete members to/from a group
admin . . . . . create and administer SCCS files
apsend . send output from device-independent troff to the MHCC phototypesetter
apstat . . . . . request status of APS-5 phototypesetter jobs submitted
ar . . . . . archive and library maintainer for portable archives
ar.pdp . . . . . archive and library maintainer
arch . . . . . interface to system archive
archive.div . . . . . send files to and retrieve files from archives
archive.mh . . . . . archive and retrieve files
archstat . . . . . print status of archive scheduler
arcv.pdp . . . . . convert archive files from PDP-11 to common archive format
as . . . . . common assembler
as.pdp . . . . . assembler for PDP-11
asa . . . . . interpret ASA carriage control characters
at . . . . . execute commands at a later time
ats . . . . . transform pseudo-ats document for nroff/MM
atsmm . . . . . convert ATS to MM
awk . . . . . pattern scanning and processing language
b16as . . . . . Basic-16 assembler
b16cc . . . . . Basic-16 C compiler
b16ckfile . . . . . check the contents of a object file
b16config . . . . . b16sts target machine configuration file generator
b16conv . . . . . Basic-16 SGS Object File Converter
b16cprs . . . . . compress an IS25 object file
b16dis . . . . . Basic-16 Disassembler
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b16lorder . . . . . find ordering relation for an object library
b16man . . . . . Print on-line documentation for Basic-16
b16nm . . . . . Basic-16 name list
b16pause . . . . . indefinite wait
b16prtv . . . . . print a Basic-16 transfer vector
b16size . . . . . Basic-16 size
b16strip . . . . . Basic-16 strip
b16sts . . . . . Basic-16 Software Testing System
banner . . . . . make posters

basename . . . . . deliver portions of path names
bc . . . . . arbitrary-precision arithmetic language
bdiff . . . . . big diff
bfs . . . . . big file scanner
bibl . . . . . retrieve and list items from the BTL Bibliography
broff . . . . . batching of nroff and troff
bs . . . . . a compiler/interpreter for modest-sized programs
bsplit . . . . . splits standard input into n-block pieces
clsend . . . . . create a Cray-1 job and submit it for execution
cacf . . . . . Record ACF2 access information for Remote Job Entry
cal . . . . . print calendar
calendar . . . . . reminder service
cat . . . . . concatenate and print files
cb . . . . . C program beautifier
cc . . . . . C compiler
cd . . . . . change working directory
cdc . . . . . change the delta commentary of an SCCS delta
cflow . . . . . generate C flow graph
chbin . . . . . change bin assignment
checknews . . . . . check to see if user has news
chg . . . . . directory comparison
chmod . . . . . change mode
chown . . . . . change owner or group
cmp . . . . . compare two files
co . . . . . connect to another computer
col . . . . . filter reverse line-feeds
comb . . . . . combine SCCS deltas
comm . . . . . select or reject lines common to two sorted files
convert . . . . . convert object and archive files to common formats
cp . . . . . copy, link or move files
cpio . . . . . copy file archives in and out
cpp . . . . . the C language preprocessor
cprs . . . . . compress an IS25 object file
cpx . . . . . copy files exactly
cratfor . . . . . rational Fortran dialect
crypt . . . . . encode/decode
csplit . . . . . context split
cstruct . . . . . structure Fortran programs
ct . . . . . spawn getty to a remote terminal
ctrace . . . . . C program debugger
cu . . . . . call another UNIX system
cu.ih . . . . . call another UNIX system
cut . . . . . cut out selected fields of each line of a file
cverify . . . . . check Fortran programs for conformance to PFORT
cxref . . . . . generate C program cross-reference
daps . . . . . Autologic APS-5 phototypesetter filter
date . . . . . print and set the date
dayplot . . . . . plot USORS daily response time percentiles
daysum . . . . . summarize USORS daily response time distributions
dc . . . . . desk calculator
dd . . . . . convert and copy a file
delta . . . . . make a delta (change) to an SCCS file
deroff . . . . . remove nroff/troff, tbl, and eqn constructs

dictadd . . . . . add phrases to user's diction, spellwwb, or sexist dictionary
diction . . . . . print wordy sentences and suggest alternatives
didoc . . . . . generate DI-3000 document
diff . . . . . differential file comparator
diff3 . . . . . 3-way differential file comparison
diffmk . . . . . mark differences between files
dircmp . . . . . directory comparison
dis . . . . . 3B20S disassembler
double . . . . . double word finder
du . . . . . summarize disk usage
dump . . . . . dump selected parts of an object file
dx9700 . . . . . prepare troff documents for the Xerox 9700 printer
echo . . . . . echo arguments
ed . . . . . text editor
edit . . . . . text editor (variant of ex for casual users)
efl . . . . . Extended Fortran Language
enable . . . . . enable/disable LP printers
env . . . . . set environment for command execution
eqn . . . . . format mathematical text for nroff or troff
ex . . . . . text editor
expr . . . . . evaluate arguments as an expression
extr . . . . . extract file from formatted input
f77 . . . . . Fortran 77 compiler
factor . . . . . factor a number
fcheck . . . . . check for corrupt files
file . . . . . determine file type
find . . . . . find files
findbe . . . . . find all forms of the verb "to be"
findi . . . . . find file names corresponding to inode numbers
finger . . . . . obtain information about other users
fixit . . . . . CRT terminal editing functions
fl . . . . . produce form letters
format . . . . . invoke embedded text formatting commands
fr . . . . . generate fiscal accounting reports
fsend . . . . . send files
fsplit . . . . . split f77, ratfor, or efl files
ftp . . . . . file transfer program
gdev . . . . . graphical device routines and filters
ged . . . . . graphical editor
get . . . . . get a version of an SCCS file
getback . . . . . retrieve recently written file
getopt . . . . . parse command options
graph . . . . . draw a graph
graphics . . . . . access graphical and numerical commands
greek . . . . . select terminal filter
grep . . . . . search a file for a pattern
gripe.ho . . . . . mail comments to UNIX counseling
gripe.mh . . . . . send mail to system administrator
grx . . . . . DI-3000 graphics interface
gutil . . . . . graphical utilities
help . . . . . ask for help
hex . . . . . convert/unconvert data to hexadecimal
hp . . . . . handle special functions of HP 2640 and 2621-series terminals

hpio . . . . . HP 2645A terminal tape file archiver
hpr . . . . . horizontal print
hyphen . . . . . find hyphenated words
id . . . . . print user and group IDs and names
ifetch . . . . . fetch data from IBM
imacv . . . . . IMAGE Data Base Converter
imadoc . . . . . generate IMAGE document
image . . . . . interactive graphic editor
imale . . . . . IMAGE Library Editor
imalt . . . . . Simple Graphics Language Translator
inews . . . . . submit news articles
info . . . . . obtain information about local systems
ins . . . . . inter-system communication
insrg . . . . . ins route generator
ipcrm . . . . . remove a message queue, semaphore set or shared memory id
ipcs . . . . . report inter-process communication facilities status
itds . . . . . Send document requests to ITDS
join . . . . . relational database operator
kasb . . . . . assembler/un-assembler for the KMC11B microprocessor
kill . . . . . terminate a process
ld . . . . . link editor for common object files
ld.pdp . . . . . link editor
lex . . . . . generate programs for simple lexical tasks
line . . . . . read one line
lines . . . . . profile of active lines
lines.ih . . . . . profile of active lines
lint . . . . . a C program checker
list . . . . . produce C source listing from 3B20S object file
logdir . . . . . get login directory
login . . . . . sign on
logname . . . . . get login name
logtty . . . . . get login terminal name
lorder . . . . . find ordering relation for an object library
lp . . . . . send/cancel requests to an LP line printer
lpstat . . . . . print LP status information
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m4as . . . . assembler for the BELLMAC-4 and BELLMAC-4B microcomputers
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m4mate . . . . . BELLMAC-4 Development System symbolic debugger
m4pb . . Converts BELLMAC-4 microcomputer boolean description of user PLA
m4phx . . . . . BELLMAC-4 microcomputer hex formatter for user PLA
m4receive . . . . . Reads m4we input data from tape
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m4we . . . . Generates BELLMAC-4 microcomputer ROM and PLA XY mask
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m8ld . . . . . link editor for BELLMAC-8 microprocessor
m8list . . . . . BELLMAC-8 microprocessor dis-assembler
m8look . . . . . check and display m8.out object files
m8nm . . . . . print name list

m8ol . . . . . overlay link editor for BELLMAC-8 microprocessor
m8sim . . . . . simulator for the BELLMAC-8 microprocessor
m8size . . . . . size of an object file
machid . . . . . provide truth value about your processor type
macref . . . . . produce cross-reference listing of macro files
mail . . . . . send mail to users or read mail
mailx . . . . . interactive message processing system
make . . . . . maintain, update, and regenerate groups of programs
makekey . . . . . generate encryption key
man . . . . . print entries in this manual
mass . . . . . execute assembly phase of MICA
match . . . . . compare style tables from two or more texts
mdef . . . . . execute definition phase of MICA
mesg . . . . . permit or deny messages
mfsend . . . . . batch DI-3000 graphics metafile interface
mfx . . . . . DI-3000 Metafile Translator interface
mkdir . . . . . make a directory
mkstand . . . . . calculate style standards for prose program
mlst . . . . . execute listing phase of MICA
mm . . . . . print/check documents formatted with the MM macros
mmlint . . . . . sroff/MM nroff/MM document compatibility checker
mmt . . . . . typeset documents, viewgraphs, and slides
mmx . . . . . print documents on the Xerox 9700 printer
net . . . . . execute a command on the PCL network
newform . . . . . change the format of a text file
newgrp . . . . . log in to a new group
news . . . . . print news items
nice . . . . . run a command at low priority
nl . . . . . line numbering filter
nm . . . . . print name list of common object file
nm.pdp . . . . . print name list
nohup . . . . . run a command immune to hangups and quits
npf . . . . . nroff print filter
nroff . . . . . format or typeset text
nscstat . . . . . query the operation status of the NSC network
nsctorje . . . . . re-route jobs from the NSC network to RJE
nusend . . . . . send files to another UNIX on the NSC network
ocw . . . . . prepare constant-width text for otroff
od . . . . . octal dump
opr . . . . . off line print
opr.py . . . . . offline print
org . . . . . show the organization of a document
overview . . . . . plots a historical overview of USORS response time summaries
p8cc . . . . . portable BELLMAC-8 C compiler
p8list . . . . . BELLMAC-8 dis-assembler and line lister for the C source line
pack . . . . . compress and expand files
pager . . . . . prints files, stopping at the top of each page
parch . . . . . transfer ATS archive document to UNIX
parts . . . . . part of speech assignment
passwd . . . . . change login password
passwd.div . . . . . change login password
paste . . . . . merge same lines of several files or subsequent lines of one file
pg . . . . . file perusal filter for soft-copy terminals

pgr . . . . . pager for crt terminals
photo . . . . . send troff output to MH typesetter
phstat . . . . . request status of submitted typesetter jobs
pib . . . . . print specified UNIX PIB
pic . . . . . troff preprocessor for drawing simple pictures
pmmt . . . . . typeset document with MM and ptroff
pmvt . . . . . typeset viewgraph with MV macros and ptroff
postnews . . . . . submit news articles
pr . . . . . print files
prism . . . . . send troff output to local prism device
prof . . . . . display profile data
proofr . . . . . automatic proofreader
prose . . . . . describe style characteristics of text
prosestand . . . . . print standards used by prose
prs . . . . . print an SCCS file
ps . . . . . report process status
ptroff . . . . . typeset document
ptx . . . . . permuted index
punct . . . . . check punctuation and print punctuation rules
pwd . . . . . working directory name
pwstat . . . . . format password file entry
ratfor . . . . . rational Fortran dialect
readnews . . . . . read news articles
regcmp . . . . . regular expression compile
remote . . . . . get IBM remote number
rjestat . . . . . RJE status report and interactive status console
rm . . . . . remove files or directories
rmdel . . . . . remove a delta from an SCCS file
sact . . . . . print current SCCS file editing activity
sag . . . . . system activity graph
sar . . . . . system activity reporter
scc . . . . . C compiler for stand-alone programs
sccsdiff . . . . . compare two versions of an SCCS file
sdb . . . . . symbolic debugger
sdiff . . . . . side-by-side difference program
se . . . . . screen editor for video terminals
sed . . . . . stream editor
see . . . . . see what a file has in it
send . . . . . gather files and/or submit RJE jobs
sexist . . . . . print sexist terms and suggest alternatives
sh . . . . . shell, the standard/restricted command programming language
shl . . . . . shell layer manager
size . . . . . print section sizes of common object files
size.pdp . . . . . print sizes of object files
sleep . . . . . suspend execution for an interval
sno . . . . . SNOBOL interpreter
sort . . . . . sort and/or merge files
sp . . . . . filter for display terminals
spell . . . . . find spelling errors
spelladd . . . . . add words to user spelling dictionary
spelltell . . . . . find the correct spelling of a word
spellwwb . . . . . find spelling errors
spline . . . . . interpolate smooth curve

split . . . . . split a file into pieces
splitrules . . . . . print information about split infinitives
sroff . . . . . format text
stare . . . . . send troff output to local STARE plotter
stare.mh . . . . . send troff output to a local STARE plotter
stat . . . . . statistical network useful with graphical commands
status . . . . . Display for the Unix Status and Exception Monitor
stlogin . . . . . sign on to synchronous terminal
strip . . . . strip symbol and line number information from a common object file
strip.pdp . . . . . remove symbols and relocation bits
ststat . . . . . report synchronous terminal facilities status
stty . . . . . set the options for a terminal
style . . . . . analyze surface characteristics of a document
su . . . . . become super-user or another user
sum . . . . . print checksum and block count of a file
syl . . . . . syllable counter
sync . . . . . update the super block
syscompare . . . . . compare response-time histories across systems
syslist . . . . . modify or echo current system list
tabs . . . . . set tabs on a terminal
tail . . . . . deliver the last part of a file
tar . . . . . tape file archiver
tbl . . . . . format tables for nroff or troff
tc . . . . . troff output interpreter
teach . . . . . register students and administer CAI materials
tee . . . . . pipe fitting
test . . . . . condition evaluation command
time . . . . . time a command
timex . . . . . time a command; report process data and system activity
toc . . . . . graphical table of contents routines
topic . . . . . find the topic of a document
touch . . . . . update access and modification times of a file
tplot . . . . . graphics filters
tput . . . . . query terminfo database
tr . . . . . translate characters
trail . . . . . print trail of archived files
trenter . . . . . enter a trouble report
troff . . . . . text formatting and typesetting
true . . . . . provide truth values
tsort . . . . . topological sort
tty . . . . . get the name of the terminal
ttyin . . . . . input data from terminal
tx . . . . . IBM tx train filter
ucat . . . . . off-line print on UNIVAC
ufetch . . . . . fetch data from Univac
ulib . . . . . uniform remote library editor
umask . . . . . set file-creation mode mask
umodem . . . . . Remote File Transfer Facility for CP/M Terminals
un53ctl . . . . . sets the registers of the communications interface USART
uname . . . . . print name of current UNIX system
unget . . . . . undo a previous get of an SCCS file
uniq . . . . . report repeated lines in a file
units . . . . . conversion program

usend . . . . . send files to another UNIX on the JES3 network
usl . . . . . uniform job submittal language
usors . . . . . collect UNIX response time information
uucall . . . . . call another system
uucp . . . . . UNIX system to UNIX system copy
uurec . . . . . receive processed news articles via mail
uustat . . . . . uucp status inquiry and job control
uuto . . . . . public UNIX-to-UNIX system file copy
uux . . . . . UNIX-to-UNIX system command execution
val . . . . . validate SCCS file
vc . . . . . version control
vi . . . . . screen-oriented (visual) display editor based on ex
vpr . . . . . Versatec printer spooler
wait . . . . . await completion of process
wc . . . . . word count
what . . . . . identify SCCS files
whereis . . . . . locate binary, source and/or manual pages
who . . . . . who is on the system
whois . . . . . returns password file entry for specified user-id
whoo . . . . . who is on the system and type of line
worduse . . . . . print information about correct usage of words
write . . . . . write to another user
wwb . . . . . Writer's Workbench system
wwbaid . . . . . On-line user's aid for the Writer's Workbench system
wwbhelp . . . . . print Writer's Workbench system commands for a topic
wwbinfo . . . print table of Writer's Workbench system commands and functions
x9700 . . . . . prepare nroff documents for the Xerox 9700 printer
xargs . . . . . construct argument list(s) and execute command
xchng . . . . . change owner and/or group
xopr . . . . . filter to print on Xerox 9700 printer (X9700)
xopr.py . . . . . offline print
yacc . . . . . yet another compiler-compiler

**6. Games**

intro . . . . . introduction to games
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bj . . . . . the game of black jack
chess . . . . . the game of chess
craps . . . . . the game of craps
hangman . . . . . guess the word
jotto . . . . . secret word game
maze . . . . . generate a maze
moo . . . . . guessing game
quiz . . . . . test your knowledge
reversi . . . . . a game of dramatic reversals
rogue . . . . . exploring The Dungeons of Doom (Version 9)
sky . . . . . obtain ephemerides
ttt . . . . . tic-tac-toe
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document compatibility checker. /sroff/MM nroff/MM . . . . mmlint(1)
formatted with the/ mm, osdd, checkmm: print/check documents . . . mm(1)
user has news. checknews: check to see if . . . . . checknews(1)
file. sum: print checksum and block count of a . . . . sum(1)
chess: the game of chess. . . . . chess(6)
chess: the game of chess. . . . . chess(6)
chg: directory comparison. . . . . chg(1)
chown, chgrp: change owner or group. . . . . chown(1)
chmod: change mode. . . . . chmod(1)
group. chown, chgrp: change owner or . . . . chown(1)
a object file. ckfile: check the contents of . . . . . b16ckfile(1)
cmp: compare two files. . . . . cmp(1)
computer. co: connect to another . . . . . co(1C)
line-feeds. col: filter reverse . . . . . col(1)
information. usors: collect UNIX response time . . . . . usors(1)
comb: combine SCCS deltas. . . . . comb(1)
comb: combine SCCS deltas. . . . . comb(1)
common to two sorted files. comm: select or reject lines . . . . . comm(1)
nice: run a command at low priority. . . . . nice(1)
env: set environment for command execution. . . . . env(1)
uux: UNIX-to-UNIX system command execution. . . . . uux(1C)
quits. nohup: run a command immune to hangups and . . . nohup(1)
net: execute a command on the PCL network. . . . . net(1C)
getopt: parse command options. . . . . getopt(1)
/shell, the standard/restricted command programming language. . . . sh(1)
and system/ timex: time a command; report process data . . . . . timex(1)
test: condition evaluation command. . . . . test(1)
time: time a command. . . . . time(1)
argument list(s) and execute command. xargs: construct . . . . . xargs(1)
intro: introduction to commands and application/ . . . . . intro(1)
of Writer's Workbench system commands and functions. /table . . . . wwbinfo(1)
at, batch: execute commands at a later time. . . . . at(1)
Writer's Workbench system commands for a topic. /print . . . . . wwbhelp(1)
embedded text formatting commands. format: invoke . . . . . format(1)
access graphical and numerical commands. graphics: . . . . . graphics(1G)
network useful with graphical commands. stat: statistical . . . . . stat(1G)
cdc: change the delta commentary of an SCCS delta. . . . . cdc(1)
gripe: mail comments to UNIX counseling. . . . . gripe.ho(1)
/archive files from PDP-11 to common archive format. . . . . arcv.pdp(1)
as: common assembler. . . . . as(1)
object and archive files to common formats. /convert . . . . . convert(1)
nm: print name list of common object file. . . . . nm(1)
line number information from a common object file. /and . . . . . strip(1)
ld: link editor for common object files. . . . . ld(1)
size: print section sizes of common object files. . . . . size(1)
comm: select or reject lines common to two sorted files. . . . . comm(1)
ipcs: report inter-process communication facilities/ . . . . . ipcs(1)
ins: inter-system communication. . . . . ins(1)
/sets the registers of the communications interface/ . . . . . un53ctl(1C)
diff: differential file comparator. . . . . diff(1)
histories across/ syscompare: compare response-time . . . . . syscompare(1)
or more texts. match: compare style tables from two . . . . . match(1)

cmp: compare two files. . . . . cmp(1)
SCCS file. sccsdiff: compare two versions of an . . . . . sccsdiff(1)
chg: directory comparison. . . . . chg(1)
diff3: 3-way differential file comparison. . . . . diff3(1)
dircmp: directory comparison. . . . . dircmp(1)
/sroff/MM nroff/MM document compatibility checker. . . . . mmlint(1)
regcmp: regular expression compile. . . . . regcmp(1)
cc: Basic-16 C compiler. . . . . b16cc(1)
cc, pcc: C compiler. . . . . cc(1)
f77: Fortran 77 compiler. . . . . f77(1)
programs. scc: C compiler for stand-alone . . . . . scc(1)
Microprocessor. m8cc: C compiler for the BELLMAC-8 . . . . m8cc(1)
p8cc: portable BELLMAC-8 C compiler. . . . . p8cc(1)
yacc: yet another compiler-compiler. . . . . yacc(1)
modest-sized programs. bs: a compiler/interpreter for . . . . . bs(1)
wait: await completion of process. . . . . wait(1)
cprs: compress an IS25 object file. . . . . b16cprs(1)
cprs: compress an IS25 object file. . . . . cprs(1)
pack, pcat, unpack: compress and expand files. . . . . pack(1)
co: connect to another computer. . . . . co(1C)
cat: concatenate and print files. . . . . cat(1)
test: condition evaluation command. . . . . test(1)
/b16sts target machine configuration file generator. . . . . b16config(1)
/check Fortran programs for conformance to PFORT. . . . . cverify(1)
co: connect to another computer. . . . . co(1C)
report and interactive status console. rjestat: RJE status . . . . . rjestat(1C)
otroff. ocw, checkcw: prepare constant-width text for . . . . . ocw(1)
execute command. xargs: construct argument list(s) and . . . . xargs(1)
nroff/troff, tbl, and eqn constructs. deroff: remove . . . . . deroff(1)
ckfile: check the contents of a object file. . . . . b16ckfile(1)
ls: list contents of directory. . . . . ls(1)
toc: graphical table of contents routines. . . . . toc(1G)
csplit: context split. . . . . csplit(1)
asa: interpret ASA carriage control characters. . . . . asa(1)
uucp status inquiry and job control. uustat: . . . . . uustat(1C)
vc: version control. . . . . vc(1)
Converter. conv: Basic-16 SGS Object File . . . . b16conv(1)
units: conversion program. . . . . units(1)
dd: convert and copy a file. . . . . dd(1)
PDP-11 to common/ arcv: convert archive files from . . . . . arcv.pdp(1)
atsmm: convert ATS to MM. . . . . atsmm(1)
hexadecimal format. b16hx: Convert b16a.out file to . . . . . b16hx(1)
microcomputer object/ m4hx: Convert BELLMAC-4 . . . . . m4hx(1)
microprocessor load/ m8hx: Convert BELLMAC-8 . . . . . m8hx(1)
archive files to common/ convert: convert object and . . . . . convert(1)
files to common/ convert: convert object and archive . . . . . convert(1)
conv: Basic-16 SGS Object File Converter. . . . . b16conv(1)
imacv: IMAGE Data Base Converter. . . . . imacv(1G)
microcomputer boolean/ m4pb: Converts BELLMAC-4 . . . . . m4pb(1)
hexadecimal. hex, unhex: convert/unconvert data to . . . . . hex(1)
dd: convert and copy a file. . . . . dd(1)
cpio: copy file archives in and out. . . . . cpio(1)
cpx: copy files exactly. . . . . cpx(1)
cp, ln, mv: copy, link or move files. . . . . cp(1)
UNIX system to UNIX system copy. uucp, uulog, uuname: . . . . . uucp(1C)
UNIX-to-UNIX system file copy. uuto, uupick: public . . . . . uuto(1C)
spelltell: find the correct spelling of a word. . . . . spelltell(1)
/print information about correct usage of words. . . . . worduse(1)

findi: find file names corresponding to inode/ . . . . . findi(1)
fcheck: check for corrupt files. . . . . fcheck(1)
gripe: mail comments to UNIX counseling. . . . . gripe.ho(1)
sum: print checksum and block count of a file. . . . . sum(1)
wc: word count. . . . . wc(1)
syl: syllable counter. . . . . syl(1)
files. cp, ln, mv: copy, link or move . . . . . cp(1)
and out. cpio: copy file archives in . . . . . cpio(1)
File Transfer Facility for CP/M Terminals. /Remote . . . . . umodem(1)
preprocessor. cpp: the C language . . . . . cpp(1)
file. cprs: compress an IS25 object . . . . . b16cprs(1)
file. cprs: compress an IS25 object . . . . . cprs(1)
cpx: copy files exactly. . . . . cpx(1)
craps: the game of craps. . . . . craps(6)
craps: the game of craps. . . . . craps(6)
dialect. cratfor: rational Fortran . . . . . cratfor(1)
execution. clsend: create a Cray-1 job and submit it for . . . . . clsend(1)
it for execution. clsend: create a Cray-1 job and submit . . . . clsend(1)
files. admin: create and administer SCCS . . . . . admin(1)
with no existing/ b16login: create login process on a port . . . . . b16login(1)
cxref: generate C program cross-reference. . . . . cxref(1)
macro files. macref: produce cross-reference listing of . . . . . macref(1)
functions. fixit: CRT terminal editing . . . . . fixit(1)
pgr: pager for crt terminals. . . . . pgr(1)
crypt: encode/decode. . . . . crypt(1)
csplit: context split. . . . . csplit(1)
programs. cstruct: structure Fortran . . . . . cstruct(1)
terminal. ct: spawn getty to a remote . . . . . ct(1C)
ctrace: C program debugger. . . . . ctrace(1)
cu: call another UNIX system. . . . . cu(1C)
cu: call another UNIX system. . . . . cu.ih(1C)
ttt, cubic: tic-tac-toe. . . . . ttt(6)
activity. sact: print current SCCS file editing . . . . . sact(1)
syslist: modify or echo current system list. . . . . syslist(1)
uname: print name of current UNIX system. . . . . uname(1)
spline: interpolate smooth curve. . . . . spline(1G)
of each line of a file. cut: cut out selected fields . . . . . cut(1)
each line of a file. cut: cut out selected fields of . . . . . cut(1)
programs for conformance to/ cverify: check Fortran . . . . . cverify(1)
cross-reference. cxref: generate C program . . . . . cxref(1)
daysum: summarize USORS daily response time/ . . . . . daysum(1)
dayplot: plot USORS daily response time/ . . . . . dayplot(1)
phototypesetter filter. daps, di10: Autologic APS-5 . . . . . daps(1)
/handle special functions of DASI 300 and 300s terminals. . . . . 300(1)
special functions of the DASI 450 terminal. /handle . . . . . 450(1)
/time a command; report process data and system activity. . . . . timex(1)
imacv: IMAGE Data Base Converter. . . . . imacv(1G)
ifetch: fetch data from IBM. . . . . ifetch(1)
m4receive: Reads m4we input data from tape. . . . . m4receive(1)
ttyin: input data from terminal. . . . . ttyin(1)
ufetch: fetch data from Univac. . . . . ufetch(1)
prof: display profile data. . . . . prof(1)
hex, unhex: convert/unconvert data to hexadecimal. . . . . hex(1)
m4send: Writes m4we input data to tape. . . . . m4send(1)
join: relational database operator. . . . . join(1)
tput: query terminfo database. . . . . tput(1)
date: print and set the date. . . . . date(1)
date: print and set the date. . . . . date(1)

response time percentiles. dayplot: plot USORS daily . . . . . dayplot(1)
response time distributions. daysum: summarize USORS daily . . . daysum(1)
dc: desk calculator. . . . . dc(1)
dd: convert and copy a file. . . . . dd(1)
adb: absolute debugger. . . . . adb(1)
ctrace: C program debugger. . . . . ctrace(1)
Development System symbolic debugger. m4mate: BELLMAC-4 . . . m4mate(1)
Development System Symbolic Debugger. m8db: BELLMAC-8 . . . m8db(1)
sdb: symbolic debugger. . . . . sdb(1)
mdef: execute definition phase of MICA. . . . . mdef(1)
group. addgrp,delgrp: add and delete members to/from a . . . . . addgrp(1)
names. basename, dirname: deliver portions of path . . . . . basename(1)
file. tail: deliver the last part of a . . . . . tail(1)
delta commentary of an SCCS delta. cdc: change the . . . . . cdc(1)
file. delta: make a delta (change) to an SCCS . . . . . delta(1)
delta. cdc: change the delta commentary of an SCCS . . . . cdc(1)
rmdel: remove a delta from an SCCS file. . . . . rmdel(1)
to an SCCS file. delta: make a delta (change) . . . . . delta(1)
comb: combine SCCS deltas. . . . . comb(1)
mesg: permit or deny messages. . . . . mesg(1)
tbl, and eqn constructs. deroff: remove nroff/troff, . . . . . deroff(1)
of text. prose: describe style characteristics . . . . . prose(1)
/microcomputer boolean description of user PLA. . . . . m4pb(1)
dc: desk calculator. . . . . dc(1)
file: determine file type. . . . . file(1)
troff output to local prism device. prism: send . . . . . prism(1C)
/tekset, td: graphical device routines and filters. . . . . gdev(1G)
the/ apsend: send output from device-independent troff to . . . . . apsend(1)
phototypesetter filter. daps, di10: Autologic APS-5 . . . . . daps(1)
didoc: generate DI-3000 document. . . . . didoc(1)
grx: DI-3000 graphics interface. . . . . grx(1)
interface. mfsend: batch DI-3000 graphics metafile . . . . . mfsend(1)
interface. mfx: DI-3000 Metafile Translator . . . . . mfx(1)
cratfor: rational Fortran dialect. . . . . cratfor(1)
ratfor: rational Fortran dialect. . . . . ratfor(1)
diction, spellwwb, or sexist/ dictadd: add phrases to user's . . . . . dictadd(1)
and suggest alternatives. diction: print wordy sentences . . . . . diction(1)
dictadd: add phrases to user's diction, spellwwb, or sexist/ . . . . . dictadd(1)
diction, spellwwb, or sexist dictionary. /phrases to user's . . . . . dictadd(1)
add words to user spelling dictionary. spelladd: . . . . . spelladd(1)
document. didoc: generate DI-3000 . . . . . didoc(1)
bdiff: big diff. . . . . bdiff(1)
comparator. diff: differential file . . . . . diff(1)
comparison. diff3: 3-way differential file . . . . . diff3(1)
sdiff: side-by-side difference program. . . . . sdiff(1)
diffmk: mark differences between files. . . . . diffmk(1)
diff: differential file comparator. . . . . diff(1)
diff3: 3-way differential file comparison. . . . . diff3(1)
between files. diffmk: mark differences . . . . . diffmk(1)
dircmp: directory comparison. . . . . dircmp(1)
rm, rmdir: remove files or directories. . . . . rm(1)
cd: change working directory. . . . . cd(1)
chg: directory comparison. . . . . chg(1)
dircmp: directory comparison. . . . . dircmp(1)
logdir: get login directory. . . . . logdir(1)
ls: list contents of directory. . . . . ls(1)
mkdir: make a directory. . . . . mkdir(1)
pwd: working directory name. . . . . pwd(1)

path names. basename, dirname: deliver portions of . . . . . basename(1)
dis: 3B20S disassembler. . . . . dis(1)
dis: Basic-16 Disassembler. . . . . b16dis(1)
printers. enable, disable: enable/disable LP . . . . . enable(1)
for the C/ p8list: BELLMAC-8 dis-assembler and line lister . . . . . p8list(1)
dis: Basic-16 Disassembler. . . . . b16dis(1)
dis: 3B20S disassembler. . . . . dis(1)
BELLMAC-8 microprocessor dis-assembler. m8list: . . . . . m8list(1)
du: summarize disk usage. . . . . du(1)
vi: screen-oriented (visual) display editor based on ex. . . . . vi(1)
and Exception/ status: Display for the Unix Status . . . . . status(1)
m8look: check and display m8.out object files. . . . . m8look(1)
prof: display profile data. . . . . prof(1)
sp: filter for display terminals. . . . . sp(1)
USORS daily response time distributions. /summarize . . . . . daysum(1)
analyze the abstractness of a document. abst: . . . . . abst(1)
mmlint: sroff/MM nroff/MM document compatibility/ . . . . . mmlint(1)
didoc: generate DI-3000 document. . . . . didoc(1)
ats: transform pseudo-ats document for nroff/MM. . . . . ats(1)
imadoc: generate IMAGE document. . . . . imadoc(1G)
show the organization of a document. org: . . . . . org(1)
ptroff: typeset document. . . . . ptroff(1)
itds: Send document requests to ITDS. . . . . itds(1)
surface characteristics of a document. style: analyze . . . . . style(1)
parch: transfer ATS archive document to UNIX. . . . . parch(1C)
topic: find the topic of a document. . . . . topic(1)
pmmt: typeset document with MM and ptroff. . . . . pmmt(1)
man: Print on-line documentation for Basic-16. . . . . b16man(1)
dx9700: prepare troff documents for the Xerox 9700/ . . . . dx9700(1)
printer. x9700: prepare nroff documents for the Xerox 9700 . . . . x9700(1)
mm, osdd, checkmm: print/check documents formatted with the/ . . . . mm(1)
printer. mmx: print documents on the Xerox 9700 . . . . . mmx(1)
slides. mmt, mvt: typeset documents, viewgraphs, and . . . . . mmt(1)
exploring The Dungeons of Doom (Version 9). /rogue: . . . . . rogue(6)
double: double word finder. . . . . double(1)
double: double word finder. . . . . double(1)
reversi: a game of dramatic reversals. . . . . reversi(6)
graph: draw a graph. . . . . graph(1G)
pic: troff preprocessor for drawing simple pictures. . . . . pic(1)
arithmetic: provide drill in number facts. . . . . arithmetic(6)
du: summarize disk usage. . . . . du(1)
an object file. dump: dump selected parts of . . . . . dump(1)
an object file. dump: dumps selected parts of . . . . b16dump(1)
od: octal dump. . . . . od(1)
object file. dump: dump selected parts of an . . . . . dump(1)
object file. dump: dumps selected parts of an . . . . . b16dump(1)
super rogue: exploring The Dungeons of Doom (Version 9). . . . . rogue(6)
documents for the Xerox 9700/ dx9700: prepare troff . . . . . dx9700(1)
echo: echo arguments. . . . . echo(1)
syslist: modify or echo current system list. . . . . syslist(1)
echo: echo arguments. . . . . echo(1)
ed, red: text editor. . . . . ed(1)
ex for casual users). edit: text editor (variant of . . . . . edit(1)
sact: print current SCCS file editing activity. . . . . sact(1)
fixit: CRT terminal editing functions. . . . . fixit(1)
/(visual) display editor based on ex. . . . . vi(1)
ed, red: text editor. . . . . ed(1)
ex: text editor. . . . . ex(1)

ld: link editor for Basic-16. . . . . b16ld(1)
microprocessor. m8ld: link editor for BELLMAC-8 . . . . . m8ld(1)
m8ol: overlay link editor for BELLMAC-8/ . . . . . m8ol(1)
files. ld: link editor for common object . . . . . ld(1)
se: screen editor for video terminals. . . . . se(1)
ged: graphical editor. . . . . ged(1G)
image: interactive graphic editor. . . . . image(1G)
imale: IMAGE Library Editor. . . . . imale(1G)
ld: link editor. . . . . ld.pdp(1)
sed: stream editor. . . . . sed(1)
ulib: uniform remote library editor. . . . . ulib(1)
casual users). edit: text editor (variant of ex for . . . . . edit(1)
Language. efl: Extended Fortran . . . . . efl(1)
fsplit: split f77, ratfor, or efl files. . . . . fsplit(1)
for a pattern. grep, egrep, fgrep: search a file . . . . . grep(1)
commands. format: invoke embedded text formatting . . . . . format(1)
enable/disable LP printers. enable, disable: . . . . . enable(1)
enable, disable: enable/disable LP printers. . . . . enable(1)
crypt: encode/decode. . . . . crypt(1)
makekey: generate encryption key. . . . . makekey(1)
trenter: enter a trouble report. . . . . trenter(1)
acc: print process accounting entries. . . . . acc(1)
man, manprog: print entries in this manual. . . . . man(1)
information for Remote Job Entry. /Record ACF2 access . . . . . cacf(1)
whois: returns password file entry for specified user-id. . . . . whois(1)
pwstat: format password file entry. . . . . pwstat(1)
command execution. env: set environment for . . . . . env(1)
execution. env: set environment for command . . . . . env(1)
sky: obtain ephemerides. . . . . sky(6)
remove nroff/troff, tbl, and eqn constructs. deroff: . . . . . deroff(1)
mathematical text for nroff/ eqn, neqn, checkeq: format . . . . . eqn(1)
graphical device/ hpd, erase, hardcopy, tekset, td: . . . . . gdev(1G)
hashcheck: find spelling errors. /hashmake, spellin, . . . . . spell(1)
spellwwb: find spelling errors. . . . . spellwwb(1)
expression. expr: evaluate arguments as an . . . . . expr(1)
test: condition evaluation command. . . . . test(1)
edit: text editor (variant of ex for casual users). . . . . edit(1)
ex: text editor. . . . . ex(1)
display editor based on ex. /screen-oriented (visual) . . . . . vi(1)
cpx: copy files exactly. . . . . cpx(1)
for the Unix Status and Exception Monitor. /Display . . . . . status(1)
network. net: execute a command on the PCL . . . . net(1C)
MICA. mass: execute assembly phase of . . . . . mass(1)
construct argument list(s) and execute command. xargs: . . . . . xargs(1)
time. at, batch: execute commands at a later . . . . . at(1)
MICA. mdef: execute definition phase of . . . . . mdef(1)
mlst: execute listing phase of MICA. . . . . mlst(1)
a Cray-1 job and submit it for execution. c1send: create . . . . . c1send(1)
set environment for command execution. env: . . . . . env(1)
sleep: suspend execution for an interval. . . . . sleep(1)
UNIX-to-UNIX system command execution. uux: . . . . . uux(1C)
process on a port with no existing login process. /login . . . . . b16login(1)
pcat, unpack: compress and expand files. pack, . . . . . pack(1)
(Version 9). super rogue: exploring The Dungeons of Doom . . . rogue(6)
expression. expr: evaluate arguments as an . . . . expr(1)
regcmp: regular expression compile. . . . . regcmp(1)
expr: evaluate arguments as an expression. . . . . expr(1)
efl: Extended Fortran Language. . . . . efl(1)

formatted input. extr: extract file from . . . . . extr(1)
input. extr: extract file from formatted . . . . . extr(1)
f77: Fortran 77 compiler. . . . . f77(1)
fsplit: split f77, ratfor, or efl files. . . . . fsplit(1)
factor: factor a number. . . . . factor(1)
factor: factor a number. . . . . factor(1)
true, false: provide truth values. . . . . true(1)
files. fcheck: check for corrupt . . . . . fcheck(1)
ifetch: fetch data from IBM. . . . . ifetch(1)
ufetch: fetch data from Univac. . . . . ufetch(1)
pattern. grep, egrep, fgrep: search a file for a . . . . . grep(1)
acro: find acronyms in a text file. . . . . acro(1)
hpio: HP 2645A terminal tape file archiver. . . . . hpio(1)
tar: tape file archiver. . . . . tar(1)
cpio: copy file archives in and out. . . . . cpio(1)
check the contents of a object file. ckfile: . . . . . b16ckfile(1)
cprs: compress an IS25 object file. . . . . b16cprs(1)
selected parts of an object file. dump: dumps . . . . . b16dump(1)
diff: differential file comparator. . . . . diff(1)
diff3: 3-way differential file comparison. . . . . diff3(1)
conv: Basic-16 SGS Object File Converter. . . . . b16conv(1)
public UNIX-to-UNIX system file copy. uuto, uupick: . . . . . uuto(1C)
cprs: compress an IS25 object file. . . . . cprs(1)
fields of each line of a file. cut: cut out selected . . . . . cut(1)
dd: convert and copy a file. . . . . dd(1)
a delta (change) to an SCCS file. delta: make . . . . . delta(1)
file: determine file type. . . . . file(1)
selected parts of an object file. dump: dump . . . . . dump(1)
sact: print current SCCS file editing activity. . . . . sact(1)
whois: returns password file entry for specified/ . . . . . whois(1)
pwstat: format password file entry. . . . . pwstat(1)
grep, egrep, fgrep: search a file for a pattern. . . . . grep(1)
extr: extract file from formatted input. . . . . extr(1)
target machine configuration file generator. /b16sts . . . . . b16config(1)
get: get a version of an SCCS file. . . . . get(1)
retrieve recently written file. getback: . . . . . getback(1)
see: see what a file has in it. . . . . see(1)
split: split a file into pieces. . . . . split(1)
listing from 3B20S object file. list: produce C source . . . . . list(1)
m8size: size of an object file. . . . . m8size(1)
inode numbers. findi: find file names corresponding to . . . . . findi(1)
change the format of a text file. newform: . . . . . newform(1)
name list of common object file. nm: print . . . . . nm(1)
or subsequent lines of one file. /lines of several files . . . . . paste(1)
soft-copy terminals. pg: file perusal filter for . . . . . pg(1)
prs: print an SCCS file. . . . . prs(1)
remove a delta from an SCCS file. rmdel: . . . . . rmdel(1)
bfs: big file scanner. . . . . bfs(1)
two versions of an SCCS file. sccsdiff: compare . . . . . sccsdiff(1)
from a common object file. /line number information . . . . . strip(1)
checksum and block count of a file. sum: print . . . . . sum(1)
deliver the last part of a file. tail: . . . . . tail(1)
BELLMAC-4 microcomputer object file to hex format. /Convert . . . . . m4hx(1)
b16hx: Convert b16a.out file to hexadecimal format. . . . . b16hx(1)
and modification times of a file. touch: update access . . . . . touch(1)
CP/M/ umodem: Remote File Transfer Facility for . . . . . umodem(1)
ftp: file transfer program. . . . . ftp(1C)
file: determine file type. . . . . file(1)

undo a previous get of an SCCS file. unget: . . . . . unget(1)
report repeated lines in a file. uniq: . . . . . uniq(1)
val: validate SCCS file. . . . . val(1)
umask: set file-creation mode mask. . . . . umask(1)
and print process accounting file(s). acctcom: search . . . . . acctcom(1)
create and administer SCCS files. admin: . . . . . admin(1)
send, gath: gather files and/or submit RJE jobs. . . . . send(1C)
archive: archive and retrieve files. . . . . archive.mh(1)
cat: concatenate and print files. . . . . cat(1)
cmp: compare two files. . . . . cmp(1)
lines common to two sorted files. comm: select or reject . . . . . comm(1)
cp, ln, mv: copy, link or move files. . . . . cp(1)
mark differences between files. diffmk: . . . . . diffmk(1)
cpx: copy files exactly. . . . . cpx(1)
fcheck: check for corrupt files. . . . . fcheck(1)
find: find files. . . . . find(1)
send files to and retrieve files from archives. archive: . . . . . archive.div(1)
archive/ arcv: convert archive files from PDP-11 to common . . . . . arcv.pdp(1)
fsend: send files. . . . . fsend(1C)
split f77, ratfor, or efl files. fsplit: . . . . . fsplit(1)
link editor for common object files. ld: . . . . . ld(1)
and display m8.out object files. m8look: check . . . . . m8look(1)
listing of macro files. /cross-reference . . . . . macref(1)
rm, rmdir: remove files or directories. . . . . rm(1)
/merge same lines of several files or subsequent lines of/ . . . . . paste(1)
unpack: compress and expand files. pack, pcat, . . . . . pack(1)
pr: print files. . . . . pr(1)
section sizes of common object files. size: print . . . . . size(1)
size: print sizes of object files. . . . . size.pdp(1)
sort: sort and/or merge files. . . . . sort(1)
each page. pager: prints files, stopping at the top of . . . . . pager(1)
from archives. archive: send files to and retrieve files . . . . . archive.div(1)
JES3 network. usend: send files to another UNIX on the . . . . . usend(1C)
NSC network. nusend: send files to another UNIX on the . . . . . nusend(1C)
/convert object and archive files to common formats. . . . . convert(1)
trail: print trail of archived files. . . . . trail(1)
what: identify SCCS files. . . . . what(1)
APS-5 phototypesetter filter. daps, di10: Autologic . . . . . daps(1)
sp: filter for display terminals. . . . . sp(1)
terminals. pg: file perusal filter for soft-copy . . . . . pg(1)
greek: select terminal filter. . . . . greek(1)
nl: line numbering filter. . . . . nl(1)
npf: nroff print filter. . . . . npf(1)
col: filter reverse line-feeds. . . . . col(1)
printer (X9700). xopr: filter to print on Xerox 9700 . . . . . xopr(1)
tx: IBM tx train filter. . . . . tx(1)
graphical device routines and filters. /tekset, td: . . . . . gdev(1G)
tplot: graphics filters. . . . . tplot(1G)
acro: find acronyms in a text file. . . . . acro(1)
"to be". findbe: find all forms of the verb . . . . . findbe(1)
to inode numbers. findi: find file names corresponding . . . . . findi(1)
find: find files. . . . . find(1)
find: find files. . . . . find(1)
hyphen: find hyphenated words. . . . . hyphen(1)
object library. lorder: find ordering relation for an . . . . . b16lorder(1)
object library. lorder: find ordering relation for an . . . . . lorder(1)
hashmake, spellin, hashcheck: find spelling errors. spell, . . . . . spell(1)
spellwwb: find spelling errors. . . . . spellwwb(1)

| | | |
|---|---|---|
| word. spelltell: | find the correct spelling of a . . . . . | spelltell(1) |
| topic: | find the topic of a document. . . . . | topic(1) |
| verb "to be". | findbe: find all forms of the . . . . . | findbe(1) |
| double: double word | finder. . . . . | double(1) |
| corresponding to inode/ | findi: find file names . . . . . | findi(1) |
| about other users. | finger: obtain information . . . . . | finger(1) |
| fr: generate | fiscal accounting reports. . . . . | fr(1) |
| tee: pipe | fitting. . . . . | tee(1) |
| functions. | fixit: CRT terminal editing . . . . . | fixit(1) |
| | fl: produce form letters. . . . . | fl(1) |
| cflow: generate C | flow graph. . . . . | cflow(1) |
| fl: produce | form letters. . . . . | fl(1) |
| from PDP-11 to common archive | format. /convert archive files . . . . . | arcv.pdp(1) |
| b16a.out file to hexadecimal | format. b16hx: Convert . . . . . | b16hx(1) |
| formatting commands. | format: invoke embedded text . . . . . | format(1) |
| object file to hex | format. /microcomputer . . . . . | m4hx(1) |
| load module to hexadecimal | format. /microprocessor . . . . . | m8hx(1) |
| nroff or/ eqn, neqn, checkeq: | format mathematical text for . . . . . | eqn(1) |
| newform: change the | format of a text file. . . . . | newform(1) |
| nroff, otroff: | format or typeset text. . . . . | nroff(1) |
| pwstat: | format password file entry. . . . . | pwstat(1) |
| troff. tbl: | format tables for nroff or . . . . . | tbl(1) |
| sroff: | format text. . . . . | sroff(1) |
| and archive files to common | formats. /convert object . . . . . | convert(1) |
| extr: extract file from | formatted input. . . . . | extr(1) |
| /checkmm: print/check documents | formatted with the MM macros. . . . | mm(1) |
| /BELLMAC-4 microcomputer hex | formatter for user PLA. . . . . | m4phx(1) |
| troff: text | formatting and typesetting. . . . . | troff(1) |
| format: invoke embedded text | formatting commands. . . . . | format(1) |
| findbe: find all | forms of the verb "to be". . . . . | findbe(1) |
| f77: | Fortran 77 compiler. . . . . | f77(1) |
| cratfor: rational | Fortran dialect. . . . . | cratfor(1) |
| ratfor: rational | Fortran dialect. . . . . | ratfor(1) |
| efl: Extended | Fortran Language. . . . . | efl(1) |
| cstruct: structure | Fortran programs. . . . . | cstruct(1) |
| conformance to/ cverify: check | Fortran programs for . . . . . | cverify(1) |
| reports. | fr: generate fiscal accounting . . . . . | fr(1) |
| list: produce C source listing | from 3B20S object file. . . . . | list(1) |
| /and line number information | from a common object file. . . . . | strip(1) |
| rmdel: remove a delta | from an SCCS file. . . . . | rmdel(1) |
| files to and retrieve files | from archives. archive: send . . . . . | archive.div(1) |
| to the/ apsend: send output | from device-independent troff . . . . . | apsend(1) |
| extr: extract file | from formatted input. . . . . | extr(1) |
| ifetch: fetch data | from IBM. . . . . | ifetch(1) |
| arcv: convert archive files | from PDP-11 to common archive/ . . . | arcv.pdp(1) |
| Reads m4we input data | from tape. m4receive: . . . . . | m4receive(1) |
| ttyin: input data | from terminal. . . . . | ttyin(1) |
| bibl: retrieve and list items | from the BTL Bibliography. . . . . | bibl(1) |
| nsctorje: re-route jobs | from the NSC network to RJE. . . . . | nsctorje(1C) |
| match: compare style tables | from two or more texts. . . . . | match(1) |
| ufetch: fetch data | from Univac. . . . . | ufetch(1) |
| | fsend: send files. . . . . | fsend(1C) |
| efl files. | fsplit: split f77, ratfor, or . . . . . | fsplit(1) |
| | ftp: file transfer program. . . . . | ftp(1C) |
| fixit: CRT terminal editing | functions. . . . . | fixit(1) |
| 300, 300s: handle special | functions of DASI 300 and 300s/ . . . | 300(1) |
| hp: handle special | functions of HP 2640 and/ . . . . . | hp(1) |
| terminal. 450: handle special | functions of the DASI 450 . . . . . | 450(1) |

printer. 9700: handle special functions of the XEROX 9700 . . . . 9700(1)
4000A: handle special functions of Trendata 4000A/ . . . . . 4000A(1)
Workbench system commands and functions. /table of Writer's . . . . . wwbinfo(1)
jotto: secret word game. . . . . jotto(6)
moo: guessing game. . . . . moo(6)
back: the game of backgammon. . . . . back(6)
bj: the game of black jack. . . . . bj(6)
chess: the game of chess. . . . . chess(6)
craps: the game of craps. . . . . craps(6)
reversi: a game of dramatic reversals. . . . . reversi(6)
wump: the game of hunt-the-wumpus. . . . . wump(6)
intro: introduction to games. . . . . intro(6)
submit RJE jobs. send, gath: gather files and/or . . . . . send(1C)
jobs. send, gath: gather files and/or submit RJE . . . . send(1C)
ged: graphical editor. . . . . ged(1G)
maze: generate a maze. . . . . maze(6)
cflow: generate C flow graph. . . . . cflow(1)
cross-reference. cxref: generate C program . . . . . cxref(1)
didoc: generate DI-3000 document. . . . . didoc(1)
makekey: generate encryption key. . . . . makekey(1)
reports. fr: generate fiscal accounting . . . . . fr(1)
imadoc: generate IMAGE document. . . . . imadoc(1G)
lexical tasks. lex: generate programs for simple . . . . . lex(1)
microcomputer ROM and/ m4we: Generates BELLMAC-4 . . . . . m4we(1)
machine configuration file generator. /b16sts target . . . . . b16config(1)
insrg: ins route generator. . . . . insrg(1)
get: get a version of an SCCS file. . . . . get(1)
file. get: get a version of an SCCS . . . . . get(1)
remote: get IBM remote number. . . . . remote(1)
logdir: get login directory. . . . . logdir(1)
logname: get login name. . . . . logname(1)
logtty: get login terminal name. . . . . logtty(1)
unget: undo a previous get of an SCCS file. . . . . unget(1)
tty: get the name of the terminal. . . . . tty(1)
written file. getback: retrieve recently . . . . . getback(1)
getopt: parse command options. . . . getopt(1)
ct: spawn getty to a remote terminal. . . . . ct(1C)
cflow: generate C flow graph. . . . . cflow(1)
graph: draw a graph. . . . . graph(1G)
graph: draw a graph. . . . . graph(1G)
sag: system activity graph. . . . . sag(1G)
image: interactive graphic editor. . . . . image(1G)
commands. graphics: access graphical and numerical . . . . . graphics(1G)
/network useful with graphical commands. . . . . stat(1G)
/erase, hardcopy, tekset, td: graphical device routines and/ . . . . gdev(1G)
ged: graphical editor. . . . . ged(1G)
routines. toc: graphical table of contents . . . . . toc(1G)
gutil: graphical utilities. . . . . gutil(1G)
numerical commands. graphics: access graphical and . . . . graphics(1G)
tplot: graphics filters. . . . . tplot(1G)
grx: DI-3000 graphics interface. . . . . grx(1)
imalt: Simple Graphics Language Translator. . . . . imalt(1G)
mfsend: batch DI-3000 graphics metafile interface. . . . . mfsend(1)
greek: select terminal filter. . . . . greek(1)
file for a pattern. grep, egrep, fgrep: search a . . . . . grep(1)
counseling. gripe: mail comments to UNIX . . . . gripe.ho(1)
administrator. gripe: send mail to system . . . . . gripe.mh(1)
and delete members to/from a group. addgrp,delgrp: add . . . . . addgrp(1)

chown, chgrp: change owner or group. . . . . chown(1)
id: print user and group IDs and names. . . . . id(1)
newgrp: log in to a new group. . . . . newgrp(1)
xchng: change owner and/or group. . . . . xchng(1)
update, and regenerate groups of programs. /maintain, . . . . make(1)
interface. grx: DI-3000 graphics . . . . . grx(1)
hangman: guess the word. . . . . hangman(6)
moo: guessing game. . . . . moo(6)
gutil: graphical utilities. . . . . gutil(1G)
DASI 300 and 300s/ 300, 300s: handle special functions of . . . . . 300(1)
2640 and 2621-series/ hp: handle special functions of HP . . . . hp(1)
the DASI 450 terminal. 450: handle special functions of . . . . . 450(1)
the XEROX 9700 printer. 9700: handle special functions of . . . . . 9700(1)
Trendata 4000A/ 4000A: handle special functions of . . . . . 4000A(1)
hangman: guess the word. . . . . hangman(6)
nohup: run a command immune to hangups and quits. . . . . nohup(1)
graphical device/ hpd, erase, hardcopy, tekset, td: . . . . . gdev(1G)
spell, hashmake, spellin, hashcheck: find spelling/ . . . . . spell(1)
find spelling errors. spell, hashmake, spellin, hashcheck: . . . . . spell(1)
help: ask for help. . . . . help(1)
help: ask for help. . . . . help(1)
microcomputer object file to hex format. /Convert BELLMAC-4 . . m4hx(1)
m4phx: BELLMAC-4 microcomputer hex formatter for user PLA. . . . . m4phx(1)
data to hexadecimal. hex, unhex: convert/unconvert . . . . hex(1)
Convert b16a.out file to hexadecimal format. b16hx: . . . . . b16hx(1)
microprocessor load module to hexadecimal format. /BELLMAC-8 . . m8hx(1)
convert/unconvert data to hexadecimal. hex, unhex: . . . . . hex(1)
response/ overview: plots a historical overview of USORS . . . . . overview(1)
/compare response-time histories across systems. . . . . syscompare(1)
hpr: horizontal print. . . . . hpr(1)
handle special functions of HP 2640 and 2621-series/ hp: . . . . hp(1)
archiver. hpio: HP 2645A terminal tape file . . . . . hpio(1)
of HP 2640 and 2621-series/ hp: handle special functions . . . . . hp(1)
td: graphical device routines/ hpd, erase, hardcopy, tekset, . . . . . gdev(1G)
file archiver. hpio: HP 2645A terminal tape . . . . hpio(1)
hpr: horizontal print. . . . . hpr(1)
wump: the game of hunt-the-wumpus. . . . . wump(6)
hyphen: find hyphenated words. . . . hyphen(1)
hyphen: find hyphenated words. . . . . hyphen(1)
ifetch: fetch data from IBM. . . . . ifetch(1)
remote: get IBM remote number. . . . . remote(1)
tx: IBM tx train filter. . . . . tx(1)
semaphore set or shared memory id. /remove a message queue, . . . . . ipcrm(1)
and names. id: print user and group IDs . . . . . id(1)
what: identify SCCS files. . . . . what(1)
id: print user and group IDs and names. . . . . id(1)
ifetch: fetch data from IBM. . . . . ifetch(1)
account: produces the IHCC Accounting Report for/ . . . . account(1C)
Converter. imacv: IMAGE Data Base . . . . . imacv(1G)
document. imadoc: generate IMAGE . . . . . imadoc(1G)
imacv: IMAGE Data Base Converter. . . . imacv(1G)
imadoc: generate IMAGE document. . . . . imadoc(1G)
editor. image: interactive graphic . . . . . image(1G)
imale: IMAGE Library Editor. . . . . imale(1G)
imale: IMAGE Library Editor. . . . . imale(1G)
Language Translator. imalt: Simple Graphics . . . . . imalt(1G)
nohup: run a command immune to hangups and quits. . . . nohup(1)
b16pause: indefinite wait. . . . . b16pause(1)

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|---|---|---|
| ptx: permuted | index. . . . . | ptx(1) |
| | inews: submit news articles. . . . . | inews(1) |
| print information about split | infinitives. splitrules: . . . . . | splitrules(1) |
| local systems. | info: obtain information about . . . . . | info(1) |
| file names corresponding to | inode numbers. findi: find . . . . . | findi(1) |
| m4receive: Reads m4we | input data from tape. . . . . | m4receive(1) |
| ttyin: | input data from terminal. . . . . | ttyin(1) |
| m4send: Writes m4we | input data to tape. . . . . | m4send(1) |
| extract file from formatted | input. extr: . . . . . | extr(1) |
| bsplit: splits standard | input into n-block pieces. . . . . | bsplit(1) |
| uustat: uucp status | inquiry and job control. . . . . | uustat(1C) |
| communication. | ins: inter-system . . . . . | ins(1) |
| insrg: | ins route generator. . . . . | insrg(1) |
| | insrg: ins route generator. . . . . | insrg(1) |
| image: | interactive graphic editor. . . . . | image(1G) |
| system. mailx: | interactive message processing . . . . | mailx(1) |
| rjestat: RJE status report and | interactive status console. . . . . | rjestat(1C) |
| grx: DI-3000 graphics | interface. . . . . | grx(1) |
| DI-3000 graphics metafile | interface. mfsend: batch . . . . . | mfsend(1) |
| DI-3000 Metafile Translator | interface. mfx: . . . . . | mfx(1) |
| arch: | interface to system archive. . . . . | arch(1) |
| of the communications | interface USART. /registers . . . . . | un53ctl(1C) |
| spline: | interpolate smooth curve. . . . . | spline(1G) |
| characters. asa: | interpret ASA carriage control . . . . | asa(1) |
| sno: SNOBOL | interpreter. . . . . | sno(1) |
| tc, otc: troff output | interpreter. . . . . | tc(1) |
| facilities/ ipcs: report | inter-process communication . . . . . | ipcs(1) |
| ins: | inter-system communication. . . . . | ins(1) |
| suspend execution for an | interval. sleep: . . . . . | sleep(1) |
| commands and application/ | intro: introduction to . . . . . | intro(1) |
| | intro: introduction to games. . . . . | intro(6) |
| application programs. intro: | introduction to commands and . . . . | intro(1) |
| intro: | introduction to games. . . . . | intro(6) |
| formatting commands. format: | invoke embedded text . . . . . | format(1) |
| semaphore set or shared/ | ipcrm: remove a message queue, . . . . | ipcrm(1) |
| communication facilities/ | ipcs: report inter-process . . . . . | ipcs(1) |
| cprs: compress an | IS25 object file. . . . . | b16cprs(1) |
| cprs: compress an | IS25 object file. . . . . | cprs(1) |
| Send document requests to | ITDS. itds: . . . . . | itds(1) |
| to ITDS. | itds: Send document requests . . . . . | itds(1) |
| bibl: retrieve and list | items from the BTL/ . . . . . | bibl(1) |
| news: print news | items. . . . . | news(1) |
| bj: the game of black | jack. . . . . | bj(6) |
| files to another UNIX on the | JES3 network. usend: send . . . . . | usend(1C) |
| operator. | join: relational database . . . . . | join(1) |
| | jotto: secret word game. . . . . | jotto(6) |
| assembler/un-assembler for/ | kasb, kunb: . . . . . | kasb(1) |
| makekey: generate encryption | key. . . . . | makekey(1) |
| | kill: terminate a process. . . . . | kill(1) |
| /assembler/un-assembler for the | KMC11B microprocessor. . . . . | kasb(1) |
| quiz: test your | knowledge. . . . . | quiz(6) |
| for the KMC11B/ kasb, | kunb: assembler/un-assembler . . . . | kasb(1) |
| scanning and processing | language. awk: pattern . . . . . | awk(1) |
| arbitrary-precision arithmetic | language. bc: . . . . . | bc(1) |
| efl: Extended Fortran | Language. . . . . | efl(1) |
| cpp: the C | language preprocessor. . . . . | cpp(1) |
| command programming | language. /standard/restricted . . . . | sh(1) |
| imalt: Simple Graphics | Language Translator. . . . . | imalt(1G) |

usl: uniform job submittal | language. . . . . usl(1)
shl: shell | layer manager. . . . . shl(1)
| ld: link editor for Basic-16. . . . . b16ld(1)
object files. | ld: link editor for common . . . . . ld(1)
| ld: link editor. . . . . ld.pdp(1)
fl: produce form | letters. . . . . fl(1)
simple lexical tasks. | lex: generate programs for . . . . . lex(1)
generate programs for simple | lexical tasks. lex: . . . . . lex(1)
relation for an object | library. /find ordering . . . . . b16lorder(1)
imale: IMAGE | Library Editor. . . . . imale(1G)
ulib: uniform remote | library editor. . . . . ulib(1)
relation for an object | library. /find ordering . . . . . lorder(1)
ar: archive and | library maintainer. . . . . ar.pdp(1)
portable/ ar: archive and | library maintainer for . . . . . ar(1)
line: read one | line. . . . . line(1)
/BELLMAC-8 dis-assembler and | line lister for the C source/ . . . . . p8list(1)
strip: strip symbol and | line number information from a/ . . . strip(1)
nl: | line numbering filter. . . . . nl(1)
out selected fields of each | line of a file. cut: cut . . . . . cut(1)
line lister for the C source | line. /dis-assembler and . . . . . p8list(1)
pn: off | line print. . . . . opr(1C)
send/cancel requests to an LP | line printer. lp, cancel: . . . . . lp(1)
| line: read one line. . . . . line(1)
is on the system and type of | line. whoo: who . . . . . whoo(1)
col: filter reverse | line-feeds. . . . . col(1)
files. comm: select or reject | lines common to two sorted . . . . . comm(1)
uniq: report repeated | lines in a file. . . . . uniq(1)
lines: profile of active | lines. . . . . lines(1)
lines: profile of active | lines. . . . . lines.ih(1)
of several files or subsequent | lines of one file. /same lines . . . . . paste(1)
subsequent/ paste: merge same | lines of several files or . . . . . paste(1)
lines. | lines: profile of active . . . . . lines(1)
lines. | lines: profile of active . . . . . lines.ih(1)
ld: | link editor for Basic-16. . . . . b16ld(1)
microprocessor. m8ld: | link editor for BELLMAC-8 . . . . . m8ld(1)
microprocessor. m8ol: overlay | link editor for BELLMAC-8 . . . . . m8ol(1)
files. ld: | link editor for common object . . . . . ld(1)
ld: | link editor. . . . . ld.pdp(1)
cp, ln, mv: copy, | link or move files. . . . . cp(1)
| lint: a C program checker. . . . . lint(1)
nm: Basic-16 name | list. . . . . b16nm(1)
| list: Basic-16 lister. . . . . b16list(1)
ls: | list contents of directory. . . . . ls(1)
bibl: retrieve and | list items from the BTL/ . . . . . bibl(1)
m8nm: print name | list. . . . . m8nm(1)
nm: print name | list. . . . . nm.pdp(1)
nm: print name | list of common object file. . . . . nm(1)
from 3B20S object file. | list: produce C source listing . . . . . list(1)
modify or echo current system | list. syslist: . . . . . syslist(1)
list: Basic-16 | lister. . . . . b16list(1)
/dis-assembler and line | lister for the C source line. . . . . p8list(1)
file. list: produce C source | listing from 3B20S object . . . . . list(1)
/produce cross-reference | listing of macro files. . . . . macref(1)
mlst: execute | listing phase of MICA. . . . . mlst(1)
xargs: construct argument | list(s) and execute command. . . . . xargs(1)
files. cp, | ln, mv: copy, link or move . . . . . cp(1)
/BELLMAC-8 microprocessor | load module to hexadecimal/ . . . . . m8hx(1)
manual pages. whereis: | locate binary, source and/or . . . . . whereis(1)

| | | |
|---|---|---|
| newgrp: | log in to a new group. | newgrp(1) |
| | logdir: get login directory. | logdir(1) |
| logdir: get | login directory. | logdir(1) |
| logname: get | login name. | logname(1) |
| passwd: change | login password. | passwd(1) |
| passwd: change | login password. | passwd.div(1) |
| on a port with no existing | login process. /login process | b16login(1) |
| no existing/ b16login: create | login process on a port with | b16login(1) |
| | login: sign on. | login(1) |
| logtty: get | login terminal name. | logtty(1) |
| | logname: get login name. | logname(1) |
| name. | logtty: get login terminal | logtty(1) |
| for an object library. | lorder: find ordering relation | b16lorder(1) |
| for an object library. | lorder: find ordering relation | lorder(1) |
| nice: run a command at | low priority. | nice(1) |
| requests to an LP line/ | lp, cancel: send/cancel | lp(1) |
| send/cancel requests to an | LP line printer. lp, cancel: | lp(1) |
| disable: enable/disable | LP printers. enable, | enable(1) |
| lpstat: print | LP status information. | lpstat(1) |
| information. | lpstat: print LP status | lpstat(1) |
| directory. | ls: list contents of | ls(1) |
| | m4: macro processor. | m4(1) |
| BELLMAC-4 and BELLMAC-4B/ | m4as: assembler for the | m4as(1) |
| microcomputer object file to/ | m4hx: Convert BELLMAC-4 | m4hx(1) |
| System symbolic debugger. | m4mate: BELLMAC-4 Development | m4mate(1) |
| microcomputer boolean/ | m4pb: Converts BELLMAC-4 | m4pb(1) |
| hex formatter for user PLA. | m4phx: BELLMAC-4 microcomputer | m4phx(1) |
| data from tape. | m4receive: Reads m4we input | m4receive(1) |
| to tape. | m4send: Writes m4we input data | m4send(1) |
| microcomputer ROM and PLA XY/ | m4we: Generates BELLMAC-4 | m4we(1) |
| m4receive: Reads | m4we input data from tape. | m4receive(1) |
| m4send: Writes | m4we input data to tape. | m4send(1) |
| BELLMAC-8 microprocessor. | m8as: assembler for the | m8as(1) |
| BELLMAC-8 Microprocessor. | m8cc: C compiler for the | m8cc(1) |
| System Symbolic Debugger. | m8db: BELLMAC-8 Development | m8db(1) |
| microprocessor load module to/ | m8hx: Convert BELLMAC-8 | m8hx(1) |
| BELLMAC-8 microprocessor. | m8ld: link editor for | m8ld(1) |
| microprocessor dis-assembler. | m8list: BELLMAC-8 | m8list(1) |
| m8.out object files. | m8look: check and display | m8look(1) |
| | m8nm: print name list. | m8nm(1) |
| BELLMAC-8 microprocessor. | m8ol: overlay link editor for | m8ol(1) |
| m8look: check and display | m8.out object files. | m8look(1) |
| BELLMAC-8 microprocessor. | m8sim: simulator for the | m8sim(1) |
| file. | m8size: size of an object | m8size(1) |
| b16config: b16sts target | machine configuration file/ | b16config(1) |
| cross-reference listing of/ | macref: produce | macref(1) |
| cross-reference listing of | macro files. macref: produce | macref(1) |
| m4: | macro processor. | m4(1) |
| typeset viewgraph with MV | macros and ptroff. pmvt: | pmvt(1) |
| formatted with the MM | macros. /print/check documents | mm(1) |
| counseling. gripe: | mail comments to UNIX | gripe.ho(1) |
| send mail to users or read | mail. mail, rmail: | mail(1) |
| users or read mail. | mail, rmail: send mail to | mail(1) |
| gripe: send | mail to system administrator. | gripe.mh(1) |
| mail, rmail: send | mail to users or read mail. | mail(1) |
| processed news articles via | mail. uurec: receive | uurec(1) |
| processing system. | mailx: interactive message | mailx(1) |
| regenerate groups of/ make: | maintain, update, and | make(1) |

ar: archive and library maintainer. . . . . ar.pdp(1)
ar: archive and library maintainer for portable/ . . . . . ar(1)
SCCS file. delta: make a delta (change) to an . . . . . delta(1)
mkdir: make a directory. . . . . mkdir(1)
regenerate groups of/ make: maintain, update, and . . . . . make(1)
banner: make posters. . . . . banner(1)
key. makekey: generate encryption . . . . . makekey(1)
this manual. man, manprog: print entries in . . . . man(1)
documentation for Basic-16. man: Print on-line . . . . . b16man(1)
shl: shell layer manager. . . . . shl(1)
manual. man, manprog: print entries in this . . . . . man(1)
manprog: print entries in this manual. man, . . . . . man(1)
locate binary, source and/or manual pages. whereis: . . . . . whereis(1)
files. diffmk: mark differences between . . . . . diffmk(1)
microcomputer ROM and PLA XY mask. /Generates BELLMAC-4 . . . m4we(1)
umask: set file-creation mode mask. . . . . umask(1)
of MICA. mass: execute assembly phase . . . . . mass(1)
from two or more texts. match: compare style tables . . . . . match(1)
students and administer CAI materials. teach: register . . . . . teach(1)
eqn, neqn, checkeq: format mathematical text for nroff or/ . . . . eqn(1)
maze: generate a maze. . . . . maze(6)
maze: generate a maze. . . . . maze(6)
of MICA. mdef: execute definition phase . . . . . mdef(1)
queue, semaphore set or shared memory id. /remove a message . . . . ipcrm(1)
sort: sort and/or merge files. . . . . sort(1)
files or subsequent/ paste: merge same lines of several . . . . . paste(1)
mesg: permit or deny messages. . . . mesg(1)
mailx: interactive message processing system. . . . . mailx(1)
or shared/ ipcrm: remove a message queue, semaphore set . . . . ipcrm(1)
mesg: permit or deny messages. . . . . mesg(1)
mfsend: batch DI-3000 graphics metafile interface. . . . . mfsend(1)
mfx: DI-3000 Metafile Translator interface. . . . . mfx(1)
metafile interface. mfsend: batch DI-3000 graphics . . . . mfsend(1)
Translator interface. mfx: DI-3000 Metafile . . . . . mfx(1)
photo: send troff output to MH typesetter. . . . . photo(1C)
/troff to the MHCC phototypesetter. . . . . apsend(1)
execute assembly phase of MICA. mass: . . . . . mass(1)
execute definition phase of MICA. mdef: . . . . . mdef(1)
mlst: execute listing phase of MICA. . . . . mlst(1)
m4pb: Converts BELLMAC-4 microcomputer boolean/ . . . . . m4pb(1)
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hex/ m4hx: Convert BELLMAC-4 microcomputer object file to . . . . . m4hx(1)
m4we: Generates BELLMAC-4 microcomputer ROM and PLA XY/ . . m4we(1)
the BELLMAC-4 and BELLMAC-4B microcomputers. /assembler for . . . . m4as(1)
m8list: BELLMAC-8 microprocessor dis-assembler. . . . . m8list(1)
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m8hx: Convert BELLMAC-8 microprocessor load module to/ . . . . m8hx(1)
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C compiler for the BELLMAC-8 Microprocessor. m8cc: . . . . . m8cc(1)
link editor for BELLMAC-8 microprocessor. m8ld: . . . . . m8ld(1)
link editor for BELLMAC-8 microprocessor. m8ol: overlay . . . . . m8ol(1)
simulator for the BELLMAC-8 microprocessor. m8sim: . . . . . m8sim(1)
mkdir: make a directory. . . . . mkdir(1)
standards for prose program. mkstand: calculate style . . . . . mkstand(1)
MICA. mlst: execute listing phase of . . . . . mlst(1)
pmmt: typeset document with MM and ptroff. . . . . pmmt(1)
atsmm: convert ATS to MM. . . . . atsmm(1)
documents formatted with the MM macros. /print/check . . . . . mm(1)

documents formatted with the/ mm, osdd, checkmm: print/check . . . mm(1)
document compatibility/ mmlint: sroff/MM nroff/MM . . . . . mmlint(1)
viewgraphs, and slides. mmt, mvt: typeset documents, . . . . . mmt(1)
Xerox 9700 printer. mmx: print documents on the . . . . . mmx(1)
chmod: change mode. . . . . chmod(1)
umask: set file-creation mode mask. . . . . umask(1)
bs: a compiler/interpreter for modest-sized programs. . . . . bs(1)
touch: update access and modification times of a file. . . . . touch(1)
list. syslist: modify or echo current system . . . . syslist(1)
/BELLMAC-8 microprocessor load module to hexadecimal format. . . . m8hx(1)
the Unix Status and Exception Monitor. status: Display for . . . . . status(1)
moo: guessing game. . . . . moo(6)
cp, ln, mv: copy, link or move files. . . . . cp(1)
cp, ln, mv: copy, link or move files. . . . . cp(1)
pmvt: typeset viewgraph with MV macros and ptroff. . . . . pmvt(1)
viewgraphs, and slides. mmt, mvt: typeset documents, . . . . . mmt(1)
splits standard input into n-block pieces. bsplit: . . . . . bsplit(1)
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execute a command on the PCL network. net: . . . . . net(1C)
operation status of the NSC network. nscstat: query the . . . . . nscstat(1C)
to another UNIX on the NSC network. nusend: send files . . . . . nusend(1C)
re-route jobs from the NSC network to RJE. nsctorje: . . . . . nsctorje(1C)
commands. stat: statistical network useful with graphical . . . . . stat(1G)
to another UNIX on the JES3 network. usend: send files . . . . . usend(1C)
a text file. newform: change the format of . . . . newform(1)
newgrp: log in to a new group. . . . . newgrp(1)
inews: submit news articles. . . . . inews(1)
postnews: submit news articles. . . . . postnews(1)
readnews: read news articles. . . . . readnews(1)
uurec: receive processed news articles via mail. . . . . uurec(1)
check to see if user has news. checknews: . . . . . checknews(1)
news: print news items. . . . . news(1)
news: print news items. . . . . news(1)
priority. nice: run a command at low . . . . . nice(1)
nl: line numbering filter. . . . . nl(1)
nm: Basic-16 name list. . . . . b16nm(1)
nm: print name list. . . . . nm.pdp(1)
object file. nm: print name list of common . . . . nm(1)
hangups and quits. nohup: run a command immune to . . . nohup(1)
npf: nroff print filter. . . . . npf(1)
broff: batching of nroff and troff. . . . . broff(1)
9700 printer. x9700: prepare nroff documents for the Xerox . . . . x9700(1)
format mathematical text for nroff or troff. /checkeq: . . . . . eqn(1)
tbl: format tables for nroff or troff. . . . . tbl(1)
typeset text. nroff, otroff: format or . . . . . nroff(1)
npf: nroff print filter. . . . . npf(1)
pseudo-ats document for nroff/MM. ats: transform . . . . . ats(1)
mmlint: sroff/MM nroff/MM document/ . . . . . mmlint(1)
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the operation status of the NSC network. nscstat: query . . . . . nscstat(1C)
files to another UNIX on the NSC network. nusend: send . . . . . nusend(1C)
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status of the NSC network. nscstat: query the operation . . . . . nscstat(1C)
the NSC network to RJE. nsctorje: re-route jobs from . . . . . nsctorje(1C)
nl: line numbering filter. . . . . nl(1)
graphics: access graphical and numerical commands. . . . . graphics(1G)
UNIX on the NSC network. nusend: send files to another . . . . . nusend(1C)

common/ convert: convert object and archive files to . . . . . convert(1)
check the contents of a object file. ckfile: . . . . . b16ckfile(1)
cprs: compress an IS25 object file. . . . . b16cprs(1)
dumps selected parts of an object file. dump: . . . . . b16dump(1)
conv: Basic-16 SGS Object File Converter. . . . . b16conv(1)
cprs: compress an IS25 object file. . . . . cprs(1)
dump selected parts of an object file. dump: . . . . . dump(1)
C source listing from 3B20S object file. list: produce . . . . . list(1)
m8size: size of an object file. . . . . m8size(1)
nm: print name list of common object file. . . . . nm(1)
information from a common object file. /and line number . . . . . strip(1)
/BELLMAC-4 microcomputer object file to hex format. . . . . m4hx(1)
ld: link editor for common object files. . . . . ld(1)
check and display m8.out object files. m8look: . . . . . m8look(1)
print section sizes of common object files. size: . . . . . size(1)
size: print sizes of object files. . . . . size.pdp(1)
find ordering relation for an object library. lorder: . . . . . b16lorder(1)
find ordering relation for an object library. lorder: . . . . . lorder(1)
sky: obtain ephemerides. . . . . sky(6)
systems. info: obtain information about local . . . . info(1)
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od: octal dump. . . . . od(1)
constant-width text for/ ocw, checkcw: prepare . . . . . ocw(1)
od: octal dump. . . . . od(1)
ucat: off-line print on UNIVAC. . . . . ucat(1)
opr: offline print. . . . . opr.py(1C)
xopr: offline print. . . . . xopr.py(1)
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join: relational database operator. . . . . join(1)
opr: offline print. . . . . opr.py(1C)
stty: set the options for a terminal. . . . . stty(1)
getopt: parse command options. . . . . getopt(1)
object library. lorder: find ordering relation for an . . . . . b16lorder(1)
object library. lorder: find ordering relation for an . . . . . lorder(1)
a document. org: show the organization of . . . . . org(1)
org: show the organization of a document. . . . . org(1)
documents formatted with/ mm, osdd, checkmm: print/check . . . . . mm(1)
tc, otc: troff output interpreter. . . . . tc(1)
text. nroff, otroff: format or typeset . . . . . nroff(1)
constant-width text for otroff. ocw, checkcw: prepare . . . . . ocw(1)
troff to the/ apsend: send output from device-independent . . . . apsend(1)
tc, otc: troff output interpreter. . . . . tc(1)
plotter. stare: send troff output to a local STARE . . . . . stare.mh(1C)
prism: send troff output to local prism device. . . . . prism(1C)
stare: send troff output to local STARE plotter. . . . stare(1C)
photo: send troff output to MH typesetter. . . . . photo(1C)
BELLMAC-8/ m8ol: overlay link editor for . . . . . m8ol(1)
overview: plots a historical overview of USORS response/ . . . . overview(1)
overview of USORS response/ overview: plots a historical . . . . . overview(1)
xchng: change owner and/or group. . . . . xchng(1)
chown, chgrp: change owner or group. . . . . chown(1)
compiler. p8cc: portable BELLMAC-8 C . . . . p8cc(1)
dis-assembler and line lister/ p8list: BELLMAC-8 . . . . . p8list(1)
and expand files. pack, pcat, unpack: compress . . . . . pack(1)
stopping at the top of each page. pager: prints files, . . . . . pager(1)
pgr: pager for crt terminals. . . . . pgr(1)

at the top of each page. pager: prints files, stopping . . . . . pager(1)
binary, source and/or manual pages. whereis: locate . . . . . whereis(1)
4014 terminal. 4014: paginator for the Tektronix . . . . . 4014(1)
document to UNIX. parch: transfer ATS archive . . . . . parch(1C)
getopt: parse command options. . . . . getopt(1)
passwd: change login password. . . . . passwd(1)
passwd: change login password. . . . . passwd.div(1)
specified/ whois: returns password file entry for . . . . . whois(1)
pwstat: format password file entry. . . . . pwstat(1)
passwd: change login password. . . . . passwd(1)
passwd: change login password. . . . . passwd.div(1)
several files or subsequent/ paste: merge same lines of . . . . . paste(1)
dirname: deliver portions of path names. basename, . . . . . basename(1)
fgrep: search a file for a pattern. grep, egrep, . . . . . grep(1)
processing language. awk: pattern scanning and . . . . . awk(1)
expand files. pack, pcat, unpack: compress and . . . . . pack(1)
cc, pcc: C compiler. . . . . cc(1)
net: execute a command on the PCL network. . . . . net(1C)
as: assembler for PDP-11. . . . . as.pdp(1)
/convert archive files from PDP-11 to common archive/ . . . . . arcv.pdp(1)
truth value about your/ pdp11, u3b, u3b5, vax: provide . . . . machid(1)
plot USORS daily response time percentiles. dayplot: . . . . . dayplot(1)
mesg: permit or deny messages. . . . . mesg(1)
ptx: permuted index. . . . . ptx(1)
terminals. pg: file perusal filter for soft-copy . . . . . pg(1)
programs for conformance to PFORT. cverify: check Fortran . . . . cverify(1)
soft-copy terminals. pg: file perusal filter for . . . . . pg(1)
pgr: pager for crt terminals. . . . . pgr(1)
mass: execute assembly phase of MICA. . . . . mass(1)
mdef: execute definition phase of MICA. . . . . mdef(1)
mlst: execute listing phase of MICA. . . . . mlst(1)
typesetter. photo: send troff output to MH . . . . photo(1C)
/troff to the MHCC phototypesetter. . . . . apsend(1)
daps, di10: Autologic APS-5 phototypesetter filter. . . . . daps(1)
request status of APS-5 phototypesetter jobs/ apstat: . . . . . apstat(1)
spellwwb, or/ dictadd: add phrases to user's diction, . . . . . dictadd(1)
submitted typesetter jobs. phstat: request status of . . . . . phstat(1C)
pib: print specified UNIX PIB. . . . . pib(1)
pib: print specified UNIX PIB. . . . . pib(1)
drawing simple pictures. pic: troff preprocessor for . . . . . pic(1)
for drawing simple pictures. /troff preprocessor . . . . . pic(1)
standard input into n-block pieces. bsplit: splits . . . . . bsplit(1)
split: split a file into pieces. . . . . split(1)
tee: pipe fitting. . . . . tee(1)
boolean description of user PLA. /BELLMAC-4 microcomputer . m4pb(1)
hex formatter for user PLA. /BELLMAC-4 microcomputer . m4phx(1)
microcomputer ROM and PLA XY mask. /BELLMAC-4 . . . . m4we(1)
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USORS response time/ overview: plots a historical overview of . . . . . overview(1)
troff output to local STARE plotter. stare: send . . . . . stare(1C)
troff output to a local STARE plotter. stare: send . . . . . stare.mh(1C)
and ptroff. pmmt: typeset document with MM . . pmmt(1)
MV macros and ptroff. pmvt: typeset viewgraph with . . . . . pmvt(1)
pn: off line print. . . . . opr(1C)
/create login process on a port with no existing login/ . . . . . b16login(1)
and library maintainer for portable archives. /archive . . . . . ar(1)
p8cc: portable BELLMAC-8 C compiler. . . p8cc(1)
basename, dirname: deliver portions of path names. . . . . basename(1)

banner: make posters. . . . . banner(1)
articles. postnews: submit news . . . . . postnews(1)
pr: print files. . . . . pr(1)
for otroff. ocw, checkcw: prepare constant-width text . . . . . ocw(1)
the Xerox 9700/ x9700: prepare nroff documents for . . . . . x9700(1)
the Xerox 9700/ dx9700: prepare troff documents for . . . . . dx9700(1)
cpp: the C language preprocessor. . . . . cpp(1)
simple pictures. pic: troff preprocessor for drawing . . . . . pic(1)
unget: undo a previous get of an SCCS file. . . . . unget(1)
vector. prtv: print a Basic-16 transfer . . . . . b16prtv(1)
prs: print an SCCS file. . . . . prs(1)
date: print and set the date. . . . . date(1)
cal: print calendar. . . . . cal(1)
of a file. sum: print checksum and block count . . . . sum(1)
editing activity. sact: print current SCCS file . . . . . sact(1)
9700 printer. mmx: print documents on the Xerox . . . . . mmx(1)
man, manprog: print entries in this manual. . . . . man(1)
cat: concatenate and print files. . . . . cat(1)
pr: print files. . . . . pr(1)
npf: nroff print filter. . . . . npf(1)
hpr: horizontal print. . . . . hpr(1)
correct usage of/ worduse: print information about . . . . . worduse(1)
infinitives. splitrules: print information about split . . . . . splitrules(1)
lpstat: print LP status information. . . . . lpstat(1)
m8nm: print name list. . . . . m8nm(1)
nm: print name list. . . . . nm.pdp(1)
object file. nm: print name list of common . . . . . nm(1)
system. uname: print name of current UNIX . . . . . uname(1)
news: print news items. . . . . news(1)
ucat: off-line print on UNIVAC. . . . . ucat(1)
(X9700). xopr: filter to print on Xerox 9700 printer . . . . . xopr(1)
for Basic-16. man: Print on-line documentation . . . . . b16man(1)
pn: off line print. . . . . opr(1C)
opr: offline print. . . . . opr.py(1C)
entries. acc: print process accounting . . . . . acc(1)
file(s). acctcom: search and print process accounting . . . . . acctcom(1)
/check punctuation and print punctuation rules. . . . . punct(1)
object files. size: print section sizes of common . . . . . size(1)
alternatives. sexist: print sexist terms and suggest . . . . . sexist(1)
size: print sizes of object files. . . . . size.pdp(1)
pib: print specified UNIX PIB. . . . . pib(1)
prosestand: print standards used by prose. . . . . prosestand(1)
scheduler. archstat: print status of archive . . . . . archstat(1)
Workbench system/ wwbinfo: print table of Writer's . . . . . wwbinfo(1)
trail: print trail of archived files. . . . . trail(1)
names. id: print user and group IDs and . . . . . id(1)
suggest/ diction: print wordy sentences and . . . . . diction(1)
system commands for/ wwbhelp: print Writer's Workbench . . . . . wwbhelp(1)
xopr: offline print. . . . . xopr.py(1)
formatted/ mm, osdd, checkmm: print/check documents . . . . . mm(1)
functions of the XEROX 9700 printer. 9700: handle special . . . . . 9700(1)
documents for the Xerox 9700 printer. /prepare troff . . . . . dx9700(1)
requests to an LP line printer. /cancel: send/cancel . . . . . lp(1)
documents on the Xerox 9700 printer. mmx: print . . . . . mmx(1)
vpr: Versatec printer spooler. . . . . vpr(1)
filter to print on Xerox 9700 printer (X9700). xopr: . . . . . xopr(1)
documents for the Xerox 9700 printer. x9700: prepare nroff . . . . . x9700(1)
disable: enable/disable LP printers. enable, . . . . . enable(1)

top of each page. pager: prints files, stopping at the . . . . . pager(1)
nice: run a command at low priority. . . . . nice(1)
send troff output to local prism device. prism: . . . . . prism(1C)
local prism device. prism: send troff output to . . . . . prism(1C)
acc: print process accounting entries. . . . . acc(1)
acctcom: search and print process accounting file(s). . . . . acctcom(1)
a port with no existing login process. /login process on . . . . . b16login(1)
timex: time a command; report process data and system/ . . . . . timex(1)
kill: terminate a process. . . . . kill(1)
b16login: create login process on a port with no/ . . . . . b16login(1)
ps: report process status. . . . . ps(1)
wait: await completion of process. . . . . wait(1)
mail. uurec: receive processed news articles via . . . . . uurec(1)
awk: pattern scanning and processing language. . . . . awk(1)
mailx: interactive message processing system. . . . . mailx(1)
m4: macro processor. . . . . m4(1)
provide truth value about your processor type. /u3b5, vax: . . . . . machid(1)
3B20S object file. list: produce C source listing from . . . . . list(1)
listing of macro/ macref: produce cross-reference . . . . . macref(1)
fl: produce form letters. . . . . fl(1)
Report for/ account: produces the IHCC Accounting . . . . account(1C)
prof: display profile data. . . . . prof(1)
prof: display profile data. . . . . prof(1)
lines: profile of active lines. . . . . lines(1)
lines: profile of active lines. . . . . lines.ih(1)
the IHCC Accounting Report for Programmers. /produces . . . . . account(1C)
standard/restricted command programming language. /the . . . . . sh(1)
proofreader. proofr, proofer: automatic . . . . . proofr(1)
proofreader. proofr, proofer: automatic . . . . . proofr(1)
proofr, proofer: automatic proofreader. . . . . proofr(1)
characteristics of text. prose: describe style . . . . . prose(1)
calculate style standards for prose program. mkstand: . . . . . mkstand(1)
print standards used by prose. prosestand: . . . . . prosestand(1)
used by prose. prosestand: print standards . . . . . prosestand(1)
arithmetic: provide drill in number facts. . . . . arithmetic(6)
pdp11, u3b, u3b5, vax: provide truth value about your/ . . . . machid(1)
true, false: provide truth values. . . . . true(1)
prs: print an SCCS file. . . . . prs(1)
transfer vector. prtv: print a Basic-16 . . . . . b16prtv(1)
ps: report process status. . . . . ps(1)
nroff/MM. ats: transform pseudo-ats document for . . . . . ats(1)
typeset document with MM and ptroff. pmmt: . . . . . pmmt(1)
viewgraph with MV macros and ptroff. pmvt: typeset . . . . . pmvt(1)
ptroff: typeset document. . . . . ptroff(1)
ptx: permuted index. . . . . ptx(1)
punctuation and print/ punct, punctrules: check . . . . . punct(1)
and print punctuation/ punct, punctrules: check punctuation . . . . . punct(1)
punct, punctrules: check punctuation and print/ . . . . . punct(1)
/check punctuation and print punctuation rules. . . . . punct(1)
pwd: working directory name. . . . . pwd(1)
entry. pwstat: format password file . . . . . pwstat(1)
tput: query terminfo database. . . . . tput(1)
the NSC network. nscstat: query the operation status of . . . . . nscstat(1C)
ipcrm: remove a message queue, semaphore set or shared/ . . . . ipcrm(1)
command immune to hangups and quits. nohup: run a . . . . . nohup(1)
quiz: test your knowledge. . . . . quiz(6)
fsplit: split f77, ratfor, or efl files. . . . . fsplit(1)
dialect. ratfor: rational Fortran . . . . . ratfor(1)

cratfor: rational Fortran dialect. . . . . cratfor(1)
ratfor: rational Fortran dialect. . . . . ratfor(1)
rmail: send mail to users or read mail. mail, . . . . . mail(1)
readnews: read news articles. . . . . readnews(1)
line: read one line. . . . . line(1)
readnews: read news articles. . . . . readnews(1)
tape. m4receive: Reads m4we input data from . . . . . m4receive(1)
articles via mail. uurec: receive processed news . . . . . uurec(1)
getback: retrieve recently written file. . . . . getback(1)
for Remote Job Entry. cacf: Record ACF2 access information . . . cacf(1)
ed, red: text editor. . . . . ed(1)
compile. regcmp: regular expression . . . . . regcmp(1)
make: maintain, update, and regenerate groups of programs. . . . make(1)
administer CAI/ teach: register students and . . . . . teach(1)
un53ctl: sets the registers of the/ . . . . . un53ctl(1C)
regcmp: regular expression compile. . . . . regcmp(1)
sorted files. comm: select or reject lines common to two . . . . . comm(1)
lorder: find ordering relation for an object/ . . . . . b16lorder(1)
lorder: find ordering relation for an object/ . . . . . lorder(1)
join: relational database operator. . . . . join(1)
strip: remove symbols and relocation bits. . . . . strip.pdp(1)
calendar: reminder service. . . . . calendar(1)
for CP/M Terminals. umodem: Remote File Transfer Facility . . . . . umodem(1)
remote: get IBM remote number. . . . remote(1)
ACF2 access information for Remote Job Entry. /Record . . . . . cacf(1)
ulib: uniform remote library editor. . . . . ulib(1)
remote: get IBM remote number. . . . . remote(1)
ct: spawn getty to a remote terminal. . . . . ct(1C)
file. rmdel: remove a delta from an SCCS . . . . rmdel(1)
semaphore set or/ ipcrm: remove a message queue, . . . . . ipcrm(1)
rm, rmdir: remove files or directories. . . . . rm(1)
eqn constructs. deroff: remove nroff/troff, tbl, and . . . . . deroff(1)
bits. strip: remove symbols and relocation . . . . strip.pdp(1)
uniq: report repeated lines in a file. . . . . uniq(1)
console. rjestat: RJE status report and interactive status . . . . . rjestat(1C)
/produces the IHCC Accounting Report for Programmers. . . . . account(1C)
communication/ ipcs: report inter-process . . . . . ipcs(1)
timex: time a command; report process data and system/ . . . . timex(1)
ps: report process status. . . . . ps(1)
file. uniq: report repeated lines in a . . . . . uniq(1)
facilities status. ststat: report synchronous terminal . . . . . ststat(1)
trenter: enter a trouble report. . . . . trenter(1)
sar: system activity reporter. . . . . sar(1)
fr: generate fiscal accounting reports. . . . . fr(1)
phototypesetter jobs/ apstat: request status of APS-5 . . . . . apstat(1)
typesetter jobs. phstat: request status of submitted . . . . . phstat(1C)
lp, cancel: send/cancel requests to an LP line/ . . . . . lp(1)
itds: Send document requests to ITDS. . . . . itds(1)
network to RJE. nsctorje: re-route jobs from the NSC . . . . . nsctorje(1C)
daysum: summarize USORS daily response time distributions. . . . . daysum(1)
usors: collect UNIX response time information. . . . . usors(1)
dayplot: plot USORS daily response time percentiles. . . . . dayplot(1)
/a historical overview of USORS response time summaries. . . . . overview(1)
systems. syscompare: compare response-time histories across . . . . . syscompare(1)
the BTL Bibliography. bibl: retrieve and list items from . . . . . bibl(1)
archive: archive and retrieve files. . . . . archive.mh(1)
archive: send files to and retrieve files from archives. . . . . archive.div(1)
file. getback: retrieve recently written . . . . . getback(1)

for specified user-id. whois: returns password file entry . . . . . whois(1)
reversi: a game of dramatic reversals. . . . . reversi(6)
col: filter reverse line-feeds. . . . . col(1)
reversals. reversi: a game of dramatic . . . . . reversi(6)
gather files and/or submit RJE jobs. send, gath: . . . . . send(1C)
jobs from the NSC network to RJE. nsctorje: re-route . . . . . nsctorje(1C)
interactive status/ rjestat: RJE status report and . . . . . rjestat(1C)
interactive status console. rjestat: RJE status report and . . . . . rjestat(1C)
directories. rm, rmdir: remove files or . . . . . rm(1)
read mail. mail, rmail: send mail to users or . . . . . mail(1)
SCCS file. rmdel: remove a delta from an . . . . rmdel(1)
directories. rm, rmdir: remove files or . . . . . rm(1)
of Doom (Version 9). super rogue: exploring The Dungeons . . . . rogue(6)
/BELLMAC-4 microcomputer ROM and PLA XY mask. . . . . m4we(1)
insrg: ins route generator. . . . . insrg(1)
/tekset, td: graphical device routines and filters. . . . . gdev(1G)
graphical table of contents routines. toc: . . . . . toc(1G)
standard/restricted/ sh, rsh: shell, the . . . . . sh(1)
and print punctuation rules. /check punctuation . . . . . punct(1)
nice: run a command at low priority. . . . . nice(1)
hangups and quits. nohup: run a command immune to . . . . . nohup(1)
editing activity. sact: print current SCCS file . . . . . sact(1)
sag: system activity graph. . . . . sag(1G)
sar: system activity reporter. . . . . sar(1)
bfs: big file scanner. . . . . bfs(1)
language. awk: pattern scanning and processing . . . . . awk(1)
stand-alone programs. scc: C compiler for . . . . . scc(1)
the delta commentary of an SCCS delta. cdc: change . . . . . cdc(1)
comb: combine SCCS deltas. . . . . comb(1)
make a delta (change) to an SCCS file. delta: . . . . . delta(1)
sact: print current SCCS file editing activity. . . . . sact(1)
get: get a version of an SCCS file. . . . . get(1)
prs: print an SCCS file. . . . . prs(1)
rmdel: remove a delta from an SCCS file. . . . . rmdel(1)
compare two versions of an SCCS file. sccsdiff: . . . . . sccsdiff(1)
undo a previous get of an SCCS file. unget: . . . . . unget(1)
val: validate SCCS file. . . . . val(1)
admin: create and administer SCCS files. . . . . admin(1)
what: identify SCCS files. . . . . what(1)
of an SCCS file. sccsdiff: compare two versions . . . . . sccsdiff(1)
print status of archive scheduler. archstat: . . . . . archstat(1)
terminals. se: screen editor for video . . . . . se(1)
display editor based on/ vi: screen-oriented (visual) . . . . . vi(1)
sdb: symbolic debugger. . . . . sdb(1)
program. sdiff: side-by-side difference . . . . . sdiff(1)
terminals. se: screen editor for video . . . . . se(1)
grep, egrep, fgrep: search a file for a pattern. . . . . grep(1)
accounting file(s). acctcom: search and print process . . . . . acctcom(1)
jotto: secret word game. . . . . jotto(6)
files. size: print section sizes of common object . . . . size(1)
sed: stream editor. . . . . sed(1)
to two sorted files. comm: select or reject lines common . . . . . comm(1)
greek: select terminal filter. . . . . greek(1)
of a file. cut: cut out selected fields of each line . . . . . cut(1)
file. dump: dumps selected parts of an object . . . . . b16dump(1)
file. dump: dump selected parts of an object . . . . . dump(1)
ipcrm: remove a message queue, semaphore set or shared memory/ . . . ipcrm(1)
ITDS. itds: Send document requests to . . . . . itds(1)

fsend: send files. . . . . fsend(1C)
files from archives. archive: send files to and retrieve . . . . . archive.div(1)
the JES3 network. usend: send files to another UNIX on . . . . usend(1C)
the NSC network. nusend: send files to another UNIX on . . . . nusend(1C)
and/or submit RJE jobs. send, gath: gather files . . . . . send(1C)
administrator. gripe: send mail to system . . . . . gripe.mh(1)
mail. mail, rmail: send mail to users or read . . . . . mail(1)
device-independent/ apsend: send output from . . . . . apsend(1)
STARE plotter. stare: send troff output to a local . . . . . stare.mh(1C)
prism device. prism: send troff output to local . . . . . prism(1C)
STARE plotter. stare: send troff output to local . . . . . stare(1C)
typesetter. photo: send troff output to MH . . . . . photo(1C)
line printer. lp, cancel: send/cancel requests to an LP . . . . . lp(1)
diction: print wordy sentences and suggest/ . . . . . diction(1)
communications/ un53ctl: sets the registers of the . . . . . un53ctl(1C)
user's diction, spellwwb, or sexist dictionary. /phrases to . . . . . dictadd(1)
suggest alternatives. sexist: print sexist terms and . . . . . sexist(1)
alternatives. sexist: print sexist terms and suggest . . . . . sexist(1)
conv: Basic-16 SGS Object File Converter. . . . . b16conv(1)
standard/restricted command/ sh, rsh: shell, the . . . . . sh(1)
queue, semaphore set or shared memory id. /a message . . . . ipcrm(1)
shl: shell layer manager. . . . . shl(1)
command programming/ sh, rsh: shell, the standard/restricted . . . . . sh(1)
shl: shell layer manager. . . . . shl(1)
program. sdiff: side-by-side difference . . . . . sdiff(1)
login: sign on. . . . . login(1)
terminal. stlogin: sign on to synchronous . . . . . stlogin(1)
Translator. imalt: Simple Graphics Language . . . . . imalt(1G)
lex: generate programs for simple lexical tasks. . . . . lex(1)
troff preprocessor for drawing simple pictures. pic: . . . . . pic(1)
microprocessor. m8sim: simulator for the BELLMAC-8 . . . . m8sim(1)
size: Basic-16 size. . . . . b16size(1)
size: Basic-16 size. . . . . b16size(1)
m8size: size of an object file. . . . . m8size(1)
common object files. size: print section sizes of . . . . . size(1)
files. size: print sizes of object . . . . . size.pdp(1)
size: print section sizes of common object files. . . . . size(1)
size: print sizes of object files. . . . . size.pdp(1)
sky: obtain ephemerides. . . . . sky(6)
an interval. sleep: suspend execution for . . . . . sleep(1)
documents, viewgraphs, and slides. mmt, mvt: typeset . . . . . mmt(1)
spline: interpolate smooth curve. . . . . spline(1G)
sno: SNOBOL interpreter. . . . . sno(1)
sno: SNOBOL interpreter. . . . . sno(1)
pg: file perusal filter for soft-copy terminals. . . . . pg(1)
b16sts: Basic-16 Software Testing System. . . . . b16sts(1)
sort: sort and/or merge files. . . . . sort(1)
sort: sort and/or merge files. . . . . sort(1)
tsort: topological sort. . . . . tsort(1)
or reject lines common to two sorted files. comm: select . . . . . comm(1)
whereis: locate binary, source and/or manual pages. . . . . whereis(1)
and line lister for the C source line. /dis-assembler . . . . . p8list(1)
object file. list: produce C source listing from 3B20S . . . . . list(1)
terminals. sp: filter for display . . . . . sp(1)
terminal. ct: spawn getty to a remote . . . . . ct(1C)
pib: print specified UNIX PIB. . . . . pib(1)
password file entry for specified user-id. /returns . . . . . whois(1)
parts: part of speech assignment. . . . . parts(1)

hashcheck: find spelling/ spell, hashmake, spellin, . . . . . spell(1)
spelling dictionary. spelladd: add words to user . . . . . spelladd(1)
spelling/ spell, hashmake, spellin, hashcheck: find . . . . . spell(1)
spelladd: add words to user spelling dictionary. . . . . spelladd(1)
spellin, hashcheck: find spelling errors. /hashmake, . . . . . spell(1)
spellwwb: find spelling errors. . . . . spellwwb(1)
spelltell: find the correct spelling of a word. . . . . spelltell(1)
spelling of a word. spelltell: find the correct . . . . . spelltell(1)
errors. spellwwb: find spelling . . . . . spellwwb(1)
add phrases to user's diction, spellwwb, or sexist/ dictadd: . . . . . dictadd(1)
curve. spline: interpolate smooth . . . . . spline(1G)
split: split a file into pieces. . . . . split(1)
csplit: context split. . . . . csplit(1)
files. fsplit: split f77, ratfor, or efl . . . . . fsplit(1)
/print information about split infinitives. . . . . splitrules(1)
pieces. split: split a file into . . . . . split(1)
about split infinitives. splitrules: print information . . . . . splitrules(1)
n-block pieces. bsplit: splits standard input into . . . . . bsplit(1)
vpr: Versatec printer spooler. . . . . vpr(1)
sroff: format text. . . . . sroff(1)
compatibility/ mmlint: sroff/MM nroff/MM document . . . . mmlint(1)
scc: C compiler for stand-alone programs. . . . . scc(1)
pieces. bsplit: splits standard input into n-block . . . . . bsplit(1)
sh, rsh: shell, the standard/restricted command/ . . . . sh(1)
mkstand: calculate style standards for prose program. . . . . mkstand(1)
prosestand: print standards used by prose. . . . . prosestand(1)
send troff output to local STARE plotter. stare: . . . . . stare(1C)
send troff output to a local STARE plotter. stare: . . . . . stare.mh(1C)
local STARE plotter. stare: send troff output to a . . . . . stare.mh(1C)
local STARE plotter. stare: send troff output to . . . . . stare(1C)
useful with graphical/ stat: statistical network . . . . . stat(1G)
with graphical/ stat: statistical network useful . . . . . stat(1G)
status: Display for the Unix Status and Exception Monitor. . . . status(1)
status report and interactive status console. rjestat: RJE . . . . . rjestat(1C)
Status and Exception Monitor. status: Display for the Unix . . . . . status(1)
lpstat: print LP status information. . . . . lpstat(1)
control. uustat: uucp status inquiry and job . . . . . uustat(1C)
communication facilities status. /report inter-process . . . . . ipcs(1)
apstat: request status of APS-5/ . . . . . apstat(1)
archstat: print status of archive scheduler. . . . . archstat(1)
jobs. phstat: request status of submitted typesetter . . . . . phstat(1C)
nscstat: query the operation status of the NSC network. . . . . nscstat(1C)
ps: report process status. . . . . ps(1)
status console. rjestat: RJE status report and interactive . . . . . rjestat(1C)
terminal facilities status. /report synchronous . . . . . ststat(1)
synchronous terminal. stlogin: sign on to . . . . . stlogin(1)
page. pager: prints files, stopping at the top of each . . . . . pager(1)
sed: stream editor. . . . . sed(1)
strip: Basic-16 strip. . . . . b16strip(1)
strip: Basic-16 strip. . . . . b16strip(1)
relocation bits. strip: remove symbols and . . . . . strip.pdp(1)
number information from a/ strip: strip symbol and line . . . . . strip(1)
information from a/ strip: strip symbol and line number . . . . . strip(1)
cstruct: structure Fortran programs. . . . . cstruct(1)
terminal facilities status. ststat: report synchronous . . . . . ststat(1)
terminal. stty: set the options for a . . . . . stty(1)
materials. teach: register students and administer CAI . . . . . teach(1)
characteristics of a/ style: analyze surface . . . . . style(1)

prose: describe style characteristics of text. . . . . prose(1)
program. mkstand: calculate style standards for prose . . . . . mkstand(1)
texts. match: compare style tables from two or more . . . . . match(1)
another user. su: become super-user or . . . . . su(1)
/create a Cray-1 job and submit it for execution. . . . . clsend(1)
inews: submit news articles. . . . . inews(1)
postnews: submit news articles. . . . . postnews(1)
gath: gather files and/or submit RJE jobs. send, . . . . . send(1C)
usl: uniform job submittal language. . . . . usl(1)
of APS-5 phototypesetter jobs submitted. /request status . . . . . apstat(1)
phstat: request status of submitted typesetter jobs. . . . . phstat(1C)
/same lines of several files or subsequent lines of one file. . . . . paste(1)
/print wordy sentences and suggest alternatives. . . . . diction(1)
sexist: print sexist terms and suggest alternatives. . . . . sexist(1)
count of a file. sum: print checksum and block . . . . sum(1)
of USORS response time summaries. /overview . . . . . overview(1)
du: summarize disk usage. . . . . du(1)
time distributions. daysum: summarize USORS daily response . . . daysum(1)
sync: update the super block. . . . . sync(1)
Dungeons of Doom (Version 9). super rogue: exploring The . . . . . rogue(6)
su: become super-user or another user. . . . . su(1)
document. style: analyze surface characteristics of a . . . . . style(1)
interval. sleep: suspend execution for an . . . . . sleep(1)
syl: syllable counter. . . . . syl(1)
syl: syllable counter. . . . . syl(1)
information from/ strip: strip symbol and line number . . . . . strip(1)
BELLMAC-4 Development System symbolic debugger. m4mate: . . . . . m4mate(1)
BELLMAC-8 Development System Symbolic Debugger. m8db: . . . . . m8db(1)
sdb: symbolic debugger. . . . . sdb(1)
strip: remove symbols and relocation bits. . . . . strip.pdp(1)
sync: update the super block. . . . . sync(1)
facilities/ ststat: report synchronous terminal . . . . . ststat(1)
stlogin: sign on to synchronous terminal. . . . . stlogin(1)
response-time histories/ syscompare: compare . . . . . syscompare(1)
current system list. syslist: modify or echo . . . . . syslist(1)
toc: graphical table of contents routines. . . . . toc(1G)
system/ wwbinfo: print table of Writer's Workbench . . . . . wwbinfo(1)
tbl: format tables for nroff or troff. . . . . tbl(1)
match: compare style tables from two or more texts. . . . . match(1)
tabs: set tabs on a terminal. . . . . tabs(1)
tabs: set tabs on a terminal. . . . . tabs(1)
a file. tail: deliver the last part of . . . . . tail(1)
hpio: HP 2645A terminal tape file archiver. . . . . hpio(1)
tar: tape file archiver. . . . . tar(1)
Reads m4we input data from tape. m4receive: . . . . . m4receive(1)
Writes m4we input data to tape. m4send: . . . . . m4send(1)
tar: tape file archiver. . . . . tar(1)
file/ b16config: b16sts target machine configuration . . . . . b16config(1)
programs for simple lexical tasks. lex: generate . . . . . lex(1)
deroff: remove nroff/troff, tbl, and eqn constructs. . . . . deroff(1)
or troff. tbl: format tables for nroff . . . . . tbl(1)
interpreter. tc, otc: troff output . . . . . tc(1)
hpd, erase, hardcopy, tekset, td: graphical device routines/ . . . . . gdev(1G)
administer CAI materials. teach: register students and . . . . . teach(1)
tee: pipe fitting. . . . . tee(1)
hpd, erase, hardcopy, tekset, td: graphical device/ . . . . . gdev(1G)
4014: paginator for the Tektronix 4014 terminal. . . . . 4014(1)
functions of Trendata 4000A terminal. /handle special . . . . . 4000A(1)

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about your/ pdp11, u3b, u3b5, vax: provide truth value . . . . . machid(1)
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obtain information about other users. finger: . . . . . finger(1)
mail, rmail: send mail to users or read mail. . . . . mail(1)
language. usl: uniform job submittal . . . . . usl(1)
time information. usors: collect UNIX response . . . . . usors(1)
daysum: summarize USORS daily response time/ . . . . . daysum(1)
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val: validate SCCS file. . . . . val(1)
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— write: write to another user. . . . . write(1)
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